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EARLY METHODS OF MEDICAL EDUCATION IN NORTH AMERICA.

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Prior to the foundation of medical colleges in North America it was customary for young men desirous of learning "physic," to go abroad and study in the schools of Edinburgh, London, or the Continent, if they had the means; or, if they had not the "wherewithal" they would apprentice themselves for a term of years to some practitioner of repute in the Colonies, and at the expiration of the term of their indenture to him, begin practice on their own account. As there were practically no laws as to who could, or who could not practice medicine, many poorly educated physicians and charlatans arose to feed upon the laity. It has been estimated that at the outset of the War for Independence, there were upward of 3500 practitioners of medicine in the Colonies, of whom not more than 400 had received medical degrees. Dr. Stille,[1] quotes from a "List of the Graduates in Medicine in the University of Edinburgh," printed by Mill & Co. in 1807, the fact that between the years 1758 and 1788 the names of sixty-three Americans appear on the list. He also points out that but one of these students came from the New England Colonies, signifying the closer relations in existence between the Middle and Southern States and the mother country.

In 1758 Dr. Ralph Asheton of Philadelphia, was one of the students in medicine at the University of Edinburgh, and I have in my possession photographs of his matriculation cards and certificates of attendance on the various courses of lectures. The originals were written or printed upon the backs of ordinary playing-cards—thus we find his ticket to the Royal Infirmary is made out upon the back of the seven of diamonds, and that admitting him to the second course on anatomy, upon the back of the deuce of spades. His cards admitting him to the lectures are all duly stamped with the seal of the university. At the conclusion of his studies he received a certificate, beautifully engrossed with pen and ink, bearing the following inscription:

> This is to certify that Mr. Ralph Asheton has *dilengtly* and carefully attended my Courses of Anatomical and Chirurgical Lectures. (Signed,)
> August 5th, 1758. HENRY WATSON.

Dr. Morton,[2] speaking of the status of these physicians who crossed the ocean for their medical education, well says: "We find that the professional men of the seventeenth and eighteenth centuries were generally much better educated than most of their successors of the present time. Almost without exception they were classical scholars. Their graduating theses must be written in Latin. Travel was essential, notwithstanding the encumbered modes of motion to which they were subjected. Leyden, Paris, Edinburgh, London, Oxford, Upsal, Bonn, and to some extent Vienna, Berlin and the Italian schools, received and honored them; they, as a rule, by their subsequent career, equally honoring the places which they visited and where they sojourned. They were also men of affairs. It is surprising what a part they took at home in politics (in its broad sense) and government. They were good soldiers, and freely offered themselves and their services to their country in time of need." Everyone will recall in this connection the eminent services rendered the patriot cause by Dr. Joseph Warren, who fell at Bunker Hill, by Dr. Prescott, who warned the minute men at Lexington and Concord, and many other physicians, too numerous to enumerate, who served in the armies or in the Congresses of the infant nation.

Not much has descended to us about the student-life of those days. With the exception of the fortunate ones, who could look back upon days spent in an English, Scotch or Continental college, the period of their tutelage seems to have been a dreary one to those disciples of Esculapius whose reminiscences have remained to us. Thacher,[3] in several of his biographic sketches, gives us glimpses of the life they led, which show conclusively that it was not all beer and skittles.

Dr. John Bard was a native of Pennsylvania, born in 1716. He received his early education in Philadelphia, and at the age of 14 years was bound apprentice to the senior Dr. Kearsley, of that city. Kearsley was a man of great professional attainments, and very eminent in his profession and in public and social life, but possessed of a most morose and gloomy temperament. "He treated his pupils with great rigor, and subjected them to the most menial employments, to which, Dr. Bard has been heard to say, he would never have submitted, but from the apprehension of giving pain to his excellent mother, who was then a widow with seven children and a very moderate income, and from the encouragement he received from the kindness of her particular friend, Mrs. Kearsley, of whom he always spoke in terms of warmest gratitude, affection and respect. Under such circumstance she persevered to the end of seven tedious years, stealing his hours of study from sleep after the family had retired to rest, and before they arose in the morning."

Benjamin Rush was born on his father's farm, a few miles from Philadelphia, in 1745. He obtained the degree of A.B. from Princeton in 1760, before he was 15 years old, and at once began the study of medicine, serving as an apprentice to Dr. John Redman

[1] Life of John Dickinson.
[2] History of the Pennsylvania Hospital.
[3] American Medical Biography.

of Philadelphia, for the next six years. Thacher says, "The writings of Hippocrates were among the first books Benjamin Rush read in medicine, and while he was an apprentice he translated his "Aphorisms" from Greek into English. He also began to keep a notebook of remarkable occurrences, the plan of which he afterward improved and continued through life. From a part of this record, written in the seventeenth year of age of its author, we derive the only account of the yellow fever in 1762 in Philadelphia which has descended to posterity. In the same year he was one of Dr. Shippen's ten pupils, who attended the first course of anatomical lectures given in this country. Two years after, and while he was a daily attendant in the shop of Dr. Redman, he commenced his brilliant career as an author. On the expiration of his apprenticeship, Benjamin Rush went in 1766, to Edinburgh to prosecute his studies in that city."

Dr. Daniel Drake was of a later period, but his medical education was so typic of that of an earlier date that I venture to quote concerning it from his life, by Mansfield. His apprenticeship began in 1800, when he was 16 years of age, to Dr. Goforth. "During the next three years his chief occupation was the study of medicine, the running of errands, the compounding of drugs, and all such employments as befall a country doctor's boy, student, young man, or whatever else bluntness or courtesy might call him."

There were no systematic courses of lectures or demonstrations for these young men, unless they happened to live in Philadelphia, Boston or New York. To Dr. Cadwallader Colden is to be ascribed the credit of the first attempt to establish a systematic course of lectures on medical subjects in the colonies. Dr. Colden was born in Dunse, Scotland, Feb. 17, 1688. He graduated in the academic course at the University of Edinburgh in 1705, and then studied medicine. In 1710 he crossed the ocean and settled in Pennsylvania. In 1715 he went back to England, but returned to Pennsylvania in 1716. In a letter of James Logan of Philadelphia, written May 1, 1717, is the following reference to his scheme:

"All I know of that bill is only this. He (Colden) came to me one day to desire my opinion of a proposal to get an Act of Assembly for an allowance to him as physician for the poor of this place. I told him I thought very well of the thing, but doubted whether it could be brought to bear in the House. Not long after R. Hill showed me a bill for this purpose, put in his hands by the Governor, with the two further provisions in it, which were, that a public physical lecture should be held in Philadelphia, to the support of which every unmarried man above twenty-one years, should pay six shillings, eight-pence, or an English crown yearly, and that the corpses of all persons whatever that died here should be visited by an appointed physician, who should receive for his trouble three shillings and four-pence. These things I owned very commendable, but doubted our Assembly would never go into them, that of the lecture especially."

Colden's efforts were fruitless, the prognostications of Logan proving correct.

In the year 1750 Dr. Thomas Cadwallader, who had been a pupil of Cheselden of London, gave a series of practical demonstrations of anatomy to a number of physicians of Philadelphia. It is almost pathetic to read of the eagerness and zeal for knowledge displayed by these old fellows, who, instead of manifesting any jealousy of the superior opportunities of their colleague, anxiously sought to reap the advantage of his London experience, which he in his turn was just as generous in imparting to them. In the same year (1750) Thacher tells us that a criminal named Hermanus Carroll was executed for murder in New York City, and his body was dissected by Dr. John Bard and Dr. Peter Middleton for the instruction of the young men then engaged in the study of medicine. "This is the first essay made in the colonies for the purpose of medical knowledge by dissection, of which we have any record."

Somewhere about the year 1752 there came to Rhode Island a young Scotchman named William Hunter, who was a relative of the two famous brothers, John and William Hunter. He was born in 1729, educated under the elder Monro, and served as a surgeon's mate at the battle of Culloden. In 1754-6 he delivered lectures at Newport, on anatomy and comparative anatomy, which were advertised in the Boston newspapers. He died in Boston in 1777. It is curious to reflect that one of the earliest teachers of anatomy in this country was a near relation of two of the greatest teachers in the medical history of England.

To no one, however, does the advancement of the study of medicine in its early days in the colonies owe more than to Dr. William Shippen, Jr., of Philadelphia. He was born in the latter city in 1736; his father being a prominent physician there. After graduating from the College of New Jersey, as Princeton was then called, he entered the office of his father and studied medicine with him for three years, and then went to England, where he studied anatomy with John Hunter, and midwifery with William Hunter and Dr. McKenzie, finally graduating from the medical department of the University of Edinburgh. His graduation thesis was, "De Placentæ cum Utero Nexu." An interesting letter from his father, to a gentleman in England, has descended to us; in it he speaks of the course of study he wishes his son to pursue while abroad, as follows: "My son has had his education in the best college in this part of the country, and has been studying physic with me, besides which he has had the opportunity of seeing the practice of every gentleman of note in our city. But for want of that variety of operations and those frequent dissections which are common in older countries, I must send him to Europe. His scheme is to gain all the knowledge he can in anatomy, physic, and surgery. He will stay in London for the winter, and shall attend Mr. Hunter's anatomical lectures and private dissections, injections, etc., and at the same time go through a course of midwifery with Dr. Smellie; also enter as a pupil in Guy's Hospital. As soon as the season is over, he may go to France, and live with Dr. Leese in Rouen, and there study physic until he can pass an examination and take a degree."

Young Shippen returned to this country in 1762, having been abroad five years, and in March of the same year he began the delivery of a series of lectures on midwifery—the first special course on that subject ever given in this country. The following announcement of the course was published in the *Pennsylvania Gazette*:

DOCTOR SHIPPEN, JUNIOR,

Proposes to begin his first course on Midwifery as soon as a number of pupils sufficient to defray the necessary expense shall apply. A course will consist of about twenty lectures in which he will treat of that part of anatomy which is necessary to understand that branch, explain all cases of midwifery—

natural, difficult, and preternatural—and give directions how to treat them with safety to the mother and child; describe the diseases incident to women and children in the month, and direct to proper remedies; will take occasion during the course to explain and apply those curious anatomical plates and casts of the gravid uterus at the Hospital, and conclude the whole with necessary cautions against the dangerous and cruel use of instruments.

In order to make this course more perfect, a convenient lodging is provided for the accommodation of a few poor women, who otherwise might suffer for want of the common necessaries on these occasions, to be under the care of a sober, honest matron, well acquainted with lying-in women, employed by the doctor for that purpose. Each pupil to attend two courses at least, for which he is to pay five guineas. Perpetual pupils to pay ten guineas.

The female pupils may be taught privately, and assisted at any of their private labors when necessary. The Doctor may be spoke with at his house, in Front street, every morning between the hours of six and nine; or at his office in Letitia Court every evening.

Dr. Norris[1] gives very copious extracts from notes taken on Dr. Shippen's introductory lecture and I quote from him the following portions. The lecture began with the statement that he was often called in consultation in cases of difficult labor, "most of which were made so by the unskilful old women about them, and seeing that great suffering to the mothers, accompanied often with loss of life to them, or their offspring, have followed, which could easily have been prevented by proper management, had made him resolve to introduce a course of lectures on that useful and necessary branch of surgery, in order to remedy those terrible evils, and to instruct those women who have had virtue enough to own their ignorance and apply for instruction, as well as those students who are qualifying themselves to practise in different parts of the country with safety and advantage to their fellow creatures." He mentions several cases of gross mismanagement of labor cases which had fallen under his observation, and then continues, "I have reason to believe that I shall be able to present each of you with one natural labor at least, and have provided a machine, by which I can demonstrate all kinds of laborious and preternatural labors, and shall give every necessary direction to enable you to manage all cases with the greatest safety to mother and child."

He stated the order in which his lectures would be given, "1st. On the Bones of the Pelvis. 2nd. Male and Female Organs. 3rd. Changes in the Uterus. 4th. On the Placenta. 5th and 6th. On the Circulation and Nutrition of the Fœtus. 7th. On the Signs of Pregnancy. 8th. On the Menses. 9th. Fluor Albus. 10th. On Natural Labors. 11th and succeeding ones on Laborious or Preternatural Labors, with the use of Instruments; and concluded by particular lectures on the Diseases of Women and Children within the month, and directions concerning the diet of each, and methods of choosing and making good nurses."

He reviewed the history of midwifery and pointed out what was necessary to make a man midwife "an adept in his profession, and to gain the good opinion of the female world," advising him to preserve a "grave deportment" with well-timed conversation, but avoiding religiously any jokes about the patient or profession." He warned the class that the drinking habit might easily be contracted "insensibly by the foolish custom of taking a dram in a cold or wet morning." Concerning their fees he says, "I give you only one admonition, which is, to charge no one extravagantly, and every one in proportion to their abilities, remembering that by giving your service gratuitously to the poor, you will get much from the rich."

Those "curious anatomical plates and casts of the gravid uterus at the Hospital," to which Dr. Shippen refers in his announcement, form a most interesting link in the genealogic chain connecting medical education in this country with that in England. They were presented to the managers of the hospital by Dr. John Fothergill of London, and the whole story of their presentation and subsequent history is most interestingly told in Dr. Morton's history of the hospital. When Dr. Shippen was studying abroad he made the acquaintance of Dr. Fothergill, who became much interested in the account he gave him of the hospital. On July 27, 1762, Dr. Fothergill presented the hospital library with its first volume, "for the benefit of the young students who may attend under the direction of the physicians," and he also gave the hospital, toward the founding of a museum, seven cases of anatomic drawings and casts, which were then valued at £350.

In a letter to James Pemberton, at that time one of the managers of the hospital, Doctor Fothergill says: "I need not tell thee that the knowledge of anatomy is of exceeding great use to practitioners in physic and surgery and that the means of procuring subjects with you are not easy. Some pretty accurate anatomical drawings, about half as big as the life, have fallen into my hands, which I propose to send to your hospital to be under the care of the physicians, and to be by them explained to the students and pupils who may attend the hospital. In the want of real subjects these will have their use, and I have recommended to Dr. Shippen to give a course of anatomical lectures to such as may attend. He is very well qualified for the subject, and will soon be followed by an able assistant, Dr. Morgan, both of whom I apprehend, will not only be useful to the Province in their employments, but if suitably countenanced by the Legislature will be able to erect a school of physic among you that may draw students from various parts of America and West Indies, and at least furnish them with a better idea of the rudiments of their profession than they have at present the means of acquiring on your side of the water."

It will be remembered that Drs. Morgan and Shippen subsequently filled the two first professorial chairs in the medical department of the University of Pennsylvania. On the minutes of the Pennsylvania Hospital, May 17, 1763, occurs the following entry:

Doct. William Shippen, Junr. attended and proposed that an advantage may arise to the hospital by the Anatomical Drawing & Casts presented by Dr. Fothergill. He offered his services to attend twice in a month to give some general explanation thereof to such Persons who may be desirous to view them, the Board approving of the Doctor's Kind Intention, the following advertisement proposed by him was agreed to be published in the next *Gazette*, viz:

"The Generous Donation of Doctr. Fothergill of London to the Pennsylvania Hospital of a Sett of Anatomical Paintings and Castings in plaister of Paris representing different views of the several parts of the human body, being now deposited in a Convenient Chamber of the Hospital, as there may be many Persons, besides Students in Physick desirous to gain some general knowledge of the structure of the human body, Dr. William Shippen, Jr. proposes to attend there on the Seventh Day of the Week the 21st inst. at 5 o'clock P.M. and once a fortnight on the same day of the week, at the same hour during the summer season, to explain and demonstrate to such persons who are willing to give a Dollar each for the benefit of the Hospital."

That Dr. Shippen did not possess the sole right to use preparations is shown by the following resolution

[1] Early History of Medicine in Philadelphia.

adopted by the board of managers of the hospital: "Any Professor of Anatomy being desirous to exhibit lectures, he is to apply to the Managers in attendance for Liberty." They also regulated the price for pupils in physic by the following rule: "All pupils attending lectures are to pay a pistole each."

In the autumn of 1762 Dr. Shippen announced to the public, through the columns of the *Pennsylvania Gazette*, his intention to give a course of anatomic lectures, in the following letter.

Philadelphia, November 11th, 1762.

Mr. Hall

Please to inform the public that a course of Anatomical Lectures will be opened this winter in Philadelphia, for the advantage of the young gentlemen now engaged in the study of Physic, in this and the neighboring provinces, whose circumstances and connections will not admit of their going abroad for improvement to the anatomical schools in Europe; and also for the entertainment of any gentlemen who may have the curiosity to understand the anatomy of the Human Frame. In these lectures the situation, figure and structure of all the parts of the Human body will be demonstrated, their respective uses explained, and as far as a course of anatomy will permit, their diseases, with the indications and methods of cure briefly treated of.

All the necessary operations in surgery will be performed, a course of bandages exhibited, and the whole conclude with an explanation of some of the curious phenomena that arise from an examination of the gravid uterus, and a few plain directions in the study and practice of midwifery. The necessity and public utility of such a course in this growing country, and the method to be pursued therein, will be more particularly explained in an Introductory Lecture, to be delivered the 16th, instant, at six o'clock in the evening, at the State House, by William Shippen, Jr., M.D. The lectures will be given at his Father's house in Fourth Street. Tickets for the course to be had of the Doctor at five pistoles each; and any gentleman who may incline to see the subject prepared for the lectures, and to learn the art of dissecting, injecting, etc., is to pay five pistoles more.

In February, 1763, he published the following notice:

Dr. Shippen having finished on Osteology—the most dry, though the most necessary part of anatomy—will admit gentlemen who want to gratify their curiosity, to any particular lecture—Tickets five shillings.

The first course that he delivered was attended by but ten students, but in subsequent years he had as many as two hundred and fifty in a class. There was a great deal of opposition to the establishment of a place in which it was proposed to dissect the human body, and several times the building in which the dissections were performed was attacked and its windows broken. Dr. Norris says, "In one of these attacks the Doctor himself made a narrow escape by passing out through an alley, while his carriage, which stood before the door with its blinds raised, and which was supposed to contain him, received, along with a shower of other missiles, a musket ball through the center of it. More than once he was compelled to desert his own dwelling and conceal himself, in order to avoid the tyrannical exactions of the people. Several times he addressed the citizens through the public papers, assuring them that the reports of his disturbing private burying-grounds were absolutely false, and stating that the subjects he dissected were either of persons who had committed suicide, or such as had been publicly executed; except, he naively adds, 'now and then one from the Potter's Field'." Gradually, however, he overcame the opposition to his project, and the undertaking proved thoroughly successful. Norris says that in December, 1762, the newspapers stated the body of a negro who had committed suicide by cutting his throat with a bottle, was handed over to Dr. Shippen for anatomic purposes, and he also quotes the following paragraph from the *Pennsylvania Gazette*, indicating that he received aid from other sources than the city of Philadelphia: "Last Saturday a prisoner was executed at Gloucester, New Jersey, pursuant to his sentence, and his body was sent by order of the Chief Justice to Dr. Shippen's anatomical theatre for dissection."

The Pennsylvania Hospital was a great center for medical instruction, furnishing greater facilities for clinical observations than could be obtained anywhere else throughout the colonies. The first patient was admitted to the hospital, Feb. 10, 1752. For some time the number of patients capable of accommodation in the hospital was so limited that the physicians and surgeons on its staff did not require the aid of skilled medical assistance in the performance of their duties, but as the number of inmates increased the staff found it very essential that they should have the aid of assistants who possessed some skill in the handling of patients, dressing of wounds, etc., and it became customary for them to bring their apprentices with them when they made the rounds of the wards, and use them as dressers and assistants, the apprentices in turn deriving the benefit of seeing the practice of the hospital. Besides their own apprentices they soon began to allow other students to make the rounds. So many young men availed themselves of these privileges that on May 10, 1763, the managers, resolved, "It is the unanimous opinion of the Board that such of them at least who are not apprentices to the Physicians of the House, should pay a proper Gratuity for the Benefit of the Hospital for their privilege; the consideration of stipulating the sum is referred to the next board after consulting with y'e Physicians."

Dr. Morton quotes the minutes of the next meeting of the Board, May 31, 1763, which, as he justly says, shows the "disinterestedness and liberality" of the physicians "in a very honourable light." The meeting occurred just after the annual election of managers and physicians to the hospital.

5TH MO., 28TH, 1763.

It appears that the Physicians chosen were informed thereof and have agreed to undertake the Service this year. A copy of the Minute of last Board respecting the Students who attend the wards at the time of the visiting the Patients having been communicated to them: Doctr. Thomas Bond and Dr. Cadw. Evans now attended and Informed the board that the several Physicians have met & considered the same & committed their Sentiments thereon to writing which they delivered & was read, it being as follows, viz:

"PHILADELPHIA, May 31, 1763.

"Upon considering the Minute of the Managers of the Pennsylvania Hospital made the 10th of 5 mo. 1763, relative to those Students who attend the Wards of said Hospital. It is our opinion that each Student who is not an Apprentice to one of the Physicians attending the House shall pay six Pistoles as a Gratuity for that Priviledge That the Managers & Doctors in Attendance for the time being shall be the judges who are proper to be admitted or refused. And further, as the Custom of most of the Hospitals in Great Britain has given such Gratuities to the Physicians and Surgeons attending them, we think it properly belongs to us to appropriate the Money arising from thence. And propose to apply it to the founding of a Medical Library in the said Hospital, which we judge will tend greatly to the Advantage of the Pupils & the Honour of the Institution.

"THOS. BOND.
"THOS. CADWALLADER.
"PHINEAS BOND,
"CAD. EVANS."

After Consideration whereof the board agrees to the Proposal in respect to the terms upon which Students in Physic are to be admitted to attend the wards: the Gratuity for which to be paid the treasurer, and in Regard to the Proposal for a Medical Library, that such books as are purchased should be

approved of by the Managers, as likewise the manner in which they are to be lent out.

At the end of their term of instruction such students were given certificates signed by the medical staff and managers of the hospital. The following was the form used for this purpose:

This is to Certify that , son of . . . West Jersey, entered regularly as a pupil of the Pennsylvania Hospital . . . 1764 and continued his attendance with Diligence and Application, to . . 1764 during which time we hope and have reason to believe he has made considerable Progress in the Knowledge of Anatomy, and the Practice of Physick and Surgery, therefore wishing Happiness and success we give from under our Hands and the seal of the Corporation, this Testimonial of our Esteem and Approbation.

In 1773, Dr. Morton tells us, the managers began the custom of taking young men who wished to study medicine as apprentices to the institution, the term of apprenticeship being five years. They were regularly indentured to the hospital for this length of time; when it was over each young man received a certificate stating that fact and a suit of "cloathes." This system of apprenticeship was continued for many years. After the foundation of the medical department of the University of Pennsylvania the apprentices attended the lectures there while they were in the service of the hospital. It was not until 1824 that the rule was made requiring all those serving the hospital in the capacity of what we now call "residents," to be regularly graduated from a medical college previous to their appointment to the position.

In 1766 Dr. Thomas Bond, of the staff of physicians to the hospital, suggested to the managers the propriety of establishing a regular course of clinical lectures, and in order to secure their assent to such a course being given he invited them to his house, Nov. 26, 1766, where he read them "An Essay on the Utility of Clinical Lectures." This lecture was presented to the hospital, and so pleased the managers that they ordered its insertion in their Minutes, whence Dr. Morton resuscitated it in the "History of the Pennsylvania Hospital."*

These lecture courses of Dr. Bond's proved highly successful and were attended by many students. There seems at times to have been considerable difficulty in the collection of fees from the students for the attendance, so that on April 2, 1770, the board of managers passed a resolution that no student should be permitted to attend who could not show a certificate stating that his fee had been paid. In 1774 the cost of the clinical lecture was made £5 per course to "all students attending lectures, and not apprenticed to physicians."

One of the most picturesque of the physicians and teachers in the early history of medicine in Philadelphia was Dr. Abraham Chovet. He was born in England, May 25, 1704, received his medical education in that country, and on Aug. 31, 1735, he was appointed demonstrator of anatomy in the United Company of Barbers and Surgeons. Afterward he went to the West Indies and lived for some time in Jamaica. In 1770 he and his family were obliged to flee from the island, owing to a slave insurrection, and they settled in Philadelphia.

The following description of the old Doctor's appearance was given to Watson,† the Annalist, by one who had often seen him: "This aged physician was almost daily to be seen pushing his way in spite of his feebleness, in a kind of hasty walk, or rather shuffle, his head and straight white hair bowed and hanging forward beyond the cape of his black old-fashioned coat, mounted by a small cocked hat, closely trimmed upward upon the crown behind, but projectingly and out of all proportion cocked before, and seemingly the impelling cause of his anxious forward movements, his lips, closely compressed (*sans* teeth) together, were in constant motion, as though he were munching something all the time; his golden-headed Indian cane, not used for his support, but dangling by a black silken string from his wrist; the ferule of his cane and the heels of his capacious shoes, well lined in winter time with thick woolen cloth, might be heard jingling and scraping the pavement at every step; he seemed on the street always as one hastening as fast as his aged limbs would permit him to some patient dangerously ill, without looking at any one passing him to the right or left." The Pennsylvania Hospital still possesses a wax medallion of him, made on his eightieth birthday, which bears the following inscription: "Abraham Chovet, born May 25, 1704, drawn May 25, 1784, by his servant, Dr. Eckhout."

The old gentleman was a great wit, and many amusing anecdotes have descended concerning him. He was noted for his use of expletives, which, Watson says, were held to be "neither useful nor ornamental." Several of the stories of his humor are worthy of repetition: Happening one day to be overtaken by a rainstorm when at the house of Samuel Fisher, a well-known Quaker, the latter lent him his own greatcoat on the condition that while he was in it he was to use no oaths, to which the Doctor agreed. When he brought back the coat, Fisher said: "Well, doctor, didst though swear whilst thou hadst on my coat?" "No," replied the Doctor, "but there was a damnable disposition to lie." He was a notorious Tory, but seems to have been humored in the expression of his opinions, even by advanced patriots.

In the appendix of "Christopher Marshall's Diary"[6] the two following stories are quoted from the *New York Gazette* for 1828: Dr. Chovet one day entered the coffee-house with an open letter in his hand, at the hour when many merchants were in the habit of gathering there. "On seeing the Doctor they all surrounded him, enquiring what news he had in that letter. . . . In reply to this inquiry, he said the letter contained information of the death of an old cobbler in London, who had his stall in one of the by-streets, and asked the gentlemen what they supposed the cobbler had died worth. One said £5000, another £10,000, and another £20,000 sterling. 'No, gentlemen, no; you are all mistaken; not one farthing, gentlemen'; running out, laughing at the joke at the expense of the collected mercantile wisdom of the city."

"Another time having been sent for to the Spanish Minister, Don Juan Mirailles, who resided in old Mr. Chew's house, in Third Street, between Walnut and Spruce streets, the weather being rather unpleasant, the Minister ordered his carriage to the door to convey the Doctor home. The Doctor, full of fun and joke, directed the coachman to drive by the Coffee House, which, as he approached, was perceived by the merchants, who immediately drew up in order,

*This lecture is well worth reading as a statement of medical knowledge at that date, and only its great length—between three and four thousand words—prevents its reproduction here with all its peculiarities of spelling and punctuation. Its reading would in no way diminish our respect for the abilities and accomplishments of the pioneers in medicine in this country.

†Annals of Philadelphia.

[6] Edited by William Duane, Phila., 1839.

hats off, to pay their respects to Don, as minister from a friendly power. The Doctor kept himself close back in the carriage until directly opposite the coffee-house, the gentlemen all bowing and scraping, when he pops out his head. 'Good morning, gentlemen, good morning; I hope you are all well; thank you in the name of His Majesty, King George,' and drove off, laughing heartily at having again joked with the Philadelphia Whigs." At the time when the mob carted Dr. John Kearsley, Jr., the son of the architect of Christ Church, and another violent Tory, through the streets, Chovet only escaped the same fate by hiding in the stable of Mr. Marshall. As a rule, however, Dr. Chovet, so far as his politics were concerned, seems to have been regarded as an amusing and eccentric old gentleman whose idiosyncrasies were harmless. He certainly never endured the gross indignities which befell so many of his fellow Tories.

Dr. Chovet brought from England a collection of wax models, and dried and injected anatomic preparations, and in the winter season of 1774–75 he delivered a series of anatomic lectures illustrated by them, of which he made the following announcement:

AT THE ANATOMICAL MUSEUM

in Videl's Alley, Second Street, on Wednesday, the Seventh of December at six in the evening

DR. CHOVET

will begin his course of Anatomical and Physiological Lectures, in which the several parts of the human body will be demonstrated, with their mechanism and actions, together with the doctrines of life, health and the several effects resulting from the actions of the parts; on his curious collection of Anatomical wax-works, and other natural preparations; to be continued the whole winter until the course is completed. As this course cannot be attended with the disagreeable sight or smell of recent disease and putrid carcases, which often disgust even the students in Physick, as well as the curious, otherwise inclined to this useful and sublime part of natural philosophy, it is hoped this undertaking will meet with suitable encouragement.

Tickets to be had for the whole course at Dr. Chovet's house in Second Street, Philadelphia.

On Nov. 24, 1783, Dr. John Foulke received permission from the board of managers of the Pennsylvania Hospital to use one of the upper rooms of the building known as the "elabratory" of the hospital for the purpose of giving lectures on "Chirurgical and Physical Subjects during the season." He was not only, according to Watson, reckoned "the best surgeon of his day," but also "the next best skater" in the city; "skating 'High Dutch,' and being able to cut his own name at one flourish, constituted the Doctor's fame as a skater." In 1784 he opened "An Anatomical Hall" with a "determination to put the character of a Philadelphia anatomist upon a higher footing than it had ever before been," also asserting, "that in his pursuit he was determined to observe every attention to decency, solemnity and punctuality." The charge was $12 a course. He continued giving these courses of lectures until his death, in 1796, and they seem to have been very largely attended.

There were several other lecture courses given in Philadelphia toward the end of the last century, which are worthy of note, indicating what an active center the city was in the development of medical education on this continent. Dr. John Hannum Gibbon, who was a Pennsylvanian by birth, graduated from the University of Edinburgh, in the medical department, in 1786; returned to this country and married a Miss Heysham of Philadelphia, after which he settled in the latter city, on Arch Street. In 1789 and for some years afterward he lectured on the "Theory and Practice of Medicine." He died at the early age of 36 years, on Oct. 5, 1795. Norris also mentions the lectures on midwifery, delivered by Dr. Benjamin Duffield, from 1793 until his death in 1799. Dr. Duffield also lectured on "Diseases of Hospitals and Jails," and "The American Practice of Physic." According to Norris, Drs. Church and James continued his obstetric lectures after his death. The same authority speaks of a course of lectures by Dr. Price of London, delivered in Philadelphia toward the close of the century, on "The Theory and Practice of Physick," and "Midwifery and the Diseases of Women and Children," and of the course on obstetrics given by Dr. Dewees in 1797.

PELVIC DISEASE.

IS IT A CAUSE OF NERVOUS AND MENTAL AFFECTIONS?

Presented to the Section on Obstetrics and Diseases of Women at the Forty-ninth Annual Meeting of the American Medical Association, held at Denver, Colo., June 7–10, 1898.

BY FREDERICK PETERSON, M.D.

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NEW YORK CITY.

It was in the sixteenth century that Montaigne, a friend of physicians, though a hater of their art, wrote, that it was safer to follow the example of the ancient Egyptians and employ specialists for each particular organ of the body than to trust one's self to the general practitioner. "As we have doublet- and breeches-makers, distinct trades, to cloath us, and are so much better fitted, being that each of them meddles only with his own business, and has less to trouble his head withal, than a taylor that undertakes all; and as in matter of diet, great persons, for their better convenience, and to the end they may be better served, have cooks of distinct offices, some for soops and pottages, and others for roasting, which one cook that should undertake the whole service, could not so well perform, so must we be treated in our cures." If that were good advice in Montaigne's day, how much more valuable must it be to-day when the bounds of scientific medicine have expanded far beyond the vision and comprehension of any one man!

No single mind can grasp and practically apply the vast store of human knowledge accumulated in the domain of the healing art during the past century. And, yet, upon the whole it seems to me that the well-rounded general practitioner has a wider field of usefulness to society than the ordinary specialist of the present day, and for this reason, that the majority of specialists carry their specialism too far. The tendency is for each to consider his narrow spot the center around which the whole human microcosm revolves. It is very much as though one should say that the sole object of human life is manufacture of a skeleton. For is not the skeleton the most enduring part of the body? Does it not last ages after the individual has disappeared? What are the muscles for if not to move the skeleton? For what purpose are the viscera, if not to nourish the muscles; and the nervous system, if not to regulate nutrition and govern the muscles in their manipulation of that supreme apparatus, the skeleton?

The specialist, to be superior to the general practi-

tioner should first of all *equal* him in a broad understanding of the principles of general medicine, and upon such foundation rear the superstructure of his specialty. He must regard man as a biologic unit in which every organ has its due place and proportion in the harmonious unity. While his own sphere of activity will naturally engross the most of his attention, the specialist should not apotheosize the eye, the nose, the uterus, or any single viscus and make it the divinity to which all the other organs must kneel. It is a species of intellectual myopia which has led some specialists, for instance, to attempt to include a large number of neuroses and psychoses, such as neurasthenia, hysteria, chorea, epilepsy, mania, melancholia, etc, among the disorders dependent upon changes in any viscus which chances to loom up overwhelmingly in their intellectual horizon. It would be vastly amusing, were it not all too often tragic, to observe the alacrity with which some of them seize upon one unfortunate organ as the sole offender in the animal economy. Woe to the individual afflicted with some nervous disorder who should by any sorry chance pass through the hands of a series of such specialists! She would be dissected piecemeal. Her eye muscles would naturally be slashed for a year or two by the ophthalmologist, who recognizes in muscular insufficiencies the origin of chorea, epilepsy, insanity and the like. The long-suffering turbinated bones would be the next to go. Then the rectum would be the site of surgical procedures, after which the clitoris, ovaries and uterus would be the object of attack. The remaining viscera being of minor consequence, the patient may then be safely turned over to the stomach specialist, or referred back to the family physician, or seek perpetual refuge in some hospital, sanitarium or asylum. Is this a picture drawn from the imagination, or is it not rather a faithful sketch of a not infrequent spectacle? Naturally, there is no one present who will, after my preliminary sentences, misunderstand me as berating all specialists. You, as well as I, feel that the specialist who is broad-minded and honest enough to look upon man as a biologic unit, will never fall into the egregious errors just portrayed.

I have been interested, since I was honored with the invitation to discuss this question, to examine five of the best works on gynecology which have been issued within the last three years, with reference to their treatment of the relations of nervous and mental disorders to pelvic disease. Three of the books had nothing to say upon the subject. Two of them discussed the subject from quite different standpoints. One of the writers could be classified among the narrow specialists to whom I have just referred. In one paragraph he states that the disorders of the nervous system resulting from disturbed menstruation "partake of the nature of chorea, hysteria, epilepsy, hystero-epilepsy, migraine and neurasthenia. These, together with nymphomania and other varieties of perverted sexual appetite, onanism and insanity, will be especially referred to." I can not reconcile such statements with others in the same chapter upon the *causes* of disordered menstruation, among which nervous and mental diseases are alleged to play an important etiologic rôle. An example of the author's point of view is his somewhat sweeping classification of insanity. He says: "For our present purposes all cases [of insanity] may be classified as follows: 1, those which are purely central, from cerebral causes; 2, those which are the result of female sexual diseases from reflex causes." What will the ophthalmologist, rhinologist and rectal specialist say to this? Where are now the exponents of the new theory of auto-intoxication?

It is a pleasure to turn from this author to the chapter on the nervous system in relation to pelvic diseases, in the little book on "Diseases of Women," by J. C. Webster (1898), in which the broad position for which I contend is assumed by the writer. The tenor of his dissertation may be inferred from one quotation, as follows: "Too strong a protest can not be urged against the centralization of attention on the local pelvic conditions without regard to wider physical and psychic relationships." I could wish, to be sure, that the author had been guided throughout his brief chapter by the wise dictum just quoted, but it is difficult for any man to free himself wholly from the traditions of his art and the contagion of his environment. The chapter, however, should be an excellent guide for generations of gynecologists yet to come, and I should feel safe in entrusting a nervous patient to a specialist in diseases of women who holds such views. Old Carl von Braun of Vienna, with whom I studied gynecology in my younger days, was wont to speak of the uterus as the Pandora box of woman's woes, a designation comprehensive enough to embody the opinion of all too many of his successors. Were sex determined anatomically by the pelvic organs alone, there might be some excuse for giving them that prominence in pathology for which certain gynecologists, especially those afflicted with the *manie operatoire*, contend. But femininity does not reside solely in the pelvic organs; it pervades the entire organism of woman, her bones, muscles, breasts, viscera and nervous system, and even her mind. The disorders of her pelvic organs have no more to do with her nervous and mental diseases than lesions elsewhere in her body; indeed, they have less to do with her psychoses and neuroses than most of her other organs, for, as in the male sex, the chief causes of their neuropsychoses are to be sought in intrinsic disorders of the nervous system itself, or in perverted nutrition of the nervous system dependent upon affections of the gastro-intestinal tract, kidneys, liver, lungs, heart, etc., and upon pathologic blood states.

It is true that puberty, adolescence, the puerperium, menstruation and the menopause are often closely related to the outbreak or the exacerbation of many nervous and mental disorders, but the pelvic organs themselves play but a small rôle in these physiologic commotions. They have to do with the whole organism of woman. These commotions influence the entire biologic unit. They disturb for a time, the intricate and harmonious adjustment of that central nervous system which serves to correlate and govern the thousands of delicate functions performed within the body, so that during such periods of unstable equilibrium, the chief factors in the etiology of the neuroses and psychoses find the biologic unit more vulnerable to attack. I do not deny that pelvic diseases in women, attended by *exhausting pain*, may give rise to neurasthenic and hysteric states, but the influence of exhausting pain in these organs is no greater than similar exhausting pain elsewhere in the body. Nor do I deny that disorders of the female organs which affect the *nutrition* of the nervous system, such as excessive hemorrhage, or suppurative processes, may be important factors in inducing func-

tional neuroses and even insanity, though disordered blood states brought about by pelvic disease are very infrequent as compared with disordered blood states dependent upon disease elsewhere. These are the main concessions, such as they are, that I should be willing to make in the argument with the gynecologist. There is no evidence whatever to support the opinion that insanity was ever due to a mere reflex influence from pelvic disease. In insanity the two great etiologic factors are hereditary instability and some physical or moral stress directly affecting the nervous system. There has never been brought forward any evidence whatever to show that either epilepsy or chorea can be induced by disease of the female organs. I take the stand, therefore, that the field of the gynecologists in the domain of nervous diseases is comparatively restricted and unimportant, and I, in common with the best men of their own specialty, raise my voice in strong protest against the still prevailing tendency to enlarge the field of operative gynecology by unjustifiable and unscientific surgical interference in cases of nervous and mental disease. It is better to do too little than too much. It is better to err on the side of science than to give the patient the so-called "benefit of the doubt," which should rather be called the affliction of the doubt. Let the gynecologist by all means treat any serious disease of the pelvic organs which may be present in any case of nervous or mental disorder just as he would a similar affection in an otherwise sound and sane woman, but let him not sacrifice upon the altars of strange gods those who trust to his knowledge, skill and broad judgment. The reflex neuroses and psychoses are will o' the wisps that lead one into obscure places, into a maze, and then vanish, leaving him astray, bewildered, remote from any familiar landmark.

W. 50 S reet.

EPIDEMIC CEREBROSPINAL MENINGITIS.

BY W. J. CLASS, M.D.

MEDICAL INSPECTOR CHICAGO HEALTH DEPARTMENT.

CHICAGO.

INTRODUCTION.

The objects which led to the investigation of which this report is the outcome were: 1, to ascertain whether true epidemic cerebrospinal meningitis existed in the city of Chicago, and 2, to trace if possible its origin and the avenues by which it spread. In regard to the first of these objects, it was soon discovered that there was a greater prevalence of the disease than was generally supposed, and enough data were collected, which we hope are of sufficient interest to the general practitioner, to excuse the writer for encroaching on those particulars of the disease which, strictly speaking, do not perhaps belong to the territory of the sanitarian. Chicago has for a number of years fortunately escaped the ravages of a disease which has been in a constantly increasing number of instances prevalent throughout a large part of the country, particularly in its eastern portion. There is hardly room for doubt that sporadic cases of epidemic cerebrospinal meningitis have almost constantly occurred in our midst; often perhaps escaping recognition from the fact that it is a disease the practitioner has not generally been accustomed to encounter. It was not, however, until the early part of 1898 that these sporadic cases, occurring with increasing frequency, attained the dignity of an epidemic. The greatest number of cases were recorded in April and May; the latter part of August and the early part of September found the city practically free from the disease. The total number of cases which occurred in this epidemic can not be positively stated, as there was no system of notification, but, approximately, the number probably approached close to two hundred during the first seven months of 1898. In presenting this report it is not the intention of the writer to dwell to any considerable extent on the history, classification, symptomatology and treatment of the disease, as these subjects have been exhaustively treated by other writers, more particularly in the excellent monograph by Councilman, Mallory and Wright, recently published by the Massachusetts State Board of Health, but a brief synopsis of the aforementioned subjects will, we hope, be deemed admissible.

The writer wishes to express his indebtedness to Drs. Christopher and Hook of this city for histories of cases furnished by them; to Dr. D. H. Ghon, assistant pathologist to the Pathological Institute of Vienna, Austria, for valuable data, especially in regard to findings made by him in his investigation of the epidemic of cerebrospinal meningitis which raged in Trifail, Steiermark; also for the many courtesies shown him by the resident and attending staffs of the Alexian Brothers, Mercy, Michael Reese, Cook County, West Side, St. Elizabeth, Augustana, St. Joseph and Maurice Porter Memorial hospitals, Chicago, and the Daily News Sanitarium for sick babies.

HISTORY.

The first authentic description of this disease is generally accredited to Vieusseaux,[1] a physician of Geneva, who described an epidemic in that city which presented a symptom-complex that previous to his time had not been recognized as an independent disease. In America the first cases of this disease were described by Danielson and Mann[2] in 1806, in which year a number of cases had occurred in Medfield, Mass. About this time also an epidemic occurred in Southern France. In Germany the disease first made its appearance in 1822.

That these were really the initial epidemics of a disorder which had previously not existed is extremely doubtful, especially when the confusion existing in regard to the different fevers during the eighteenth and early part of the nineteenth centuries is taken into consideration. The almost identic phenomena to which at the present time the name of cerebrospinal meningitis is given, appear in descriptions published in the eighteenth century, under the name of cerebral typhus, jail fever, spotted fever, etc. Even as late as 1846 there was considerable doubt among physicians whether they really had to deal with an independent disease in cerebrospinal meningitis, as is shown by a paper by Rampold.[3] Arnell[4] described an epidemic of spotted fever, the symptoms of which were closely analogous to cerebrospinal meningitis, which existed in Orange County, N. Y., in 1808-1809. From this time until about 1825 the disease was very prevalent in the eastern part of the United States, more particularly in New England. Its spread was, however, not uniform, several towns widely separated being attacked simultaneously, while in the intervening places the disease would perhaps put in an appearance after a lapse of a few years. Very few of the larger towns in Massachusetts and Connecticut en-

tirely escaped the disease during this period, and it was, as a rule, of a more violent type than has been described in recent epidemics, death often occurring within twenty-four to forty-eight hours after its onset; the skin lesions were also much more prominent, hence the name of spotted fever generally given to it. During the period mentioned, Europe remained comparatively immune, although the neighborhood of Geneva, where the disease was first recognized, seemed to remain infected, and small epidemics occurred from time to time.

During the thirties, the disease became more prevalent in Europe, prevailing principally in the western and southern portions, the central States enjoying comparative immunity. No epidemics were reported in the United States from 1830 to 1842. In 1848 Chipley[5] described some cases of epidemic cerebrospinal meningitis occurring in Cincinnati, and in 1846, Mayne[6] some cases in Dublin. Von Ritter[7] of Prague describes this disease in 1851, and Roger[8] in 1846, reported some of the early cases noted in southwestern Germany. In Ireland the disease again made its appearance in 1855, in which year there appeared a report on it by Banks.[9] From 1850 to 1860 the number of cases reported was small, there being no very extensive epidemics noted. During the sixth decade and the first half of the seventh a great increase was noted, epidemics being reported as occurring in almost all the countries of Europe and the United States, and a large addition to the literature on this subject was made. Among the publications of this period are those by Andrew,[10] Baennler,[11] Barton,[12] Day,[20] Gibbon[22] and Martin[30] of Great Britain; Bessey[13] of Canada, Bleything,[14] Borland,[15] Chandler,[18] Conklin,[19] Gifford,[23] Jones,[26] Upham[33] and Webber[34] of the United States; Buttersack,[16] Cannstatt,[18] Hampeln,[24] Heller,[25] Maier,[29] Maier,[31] and Wiebecke[35] of Germany; Spörer[32] of Russia and Drasche,[21] Kratschmer[27] and Loudon[28] of Austria. From 1875 to 1885 there was a partial remission of the progress of the disease, only a few scattered epidemics and sporadic cases being reported. The year 1887 was distinguished by the most important discovery in connection with the study of this disease, viz., that of the micro-organism now generally conceded to be the causative factor—the diplococcus intracellularis. This organism was first described by Weichselbaum,[36] who had discovered it in the exudate of a number of cases of cerebrospinal meningitis, and it was by him considered as the probable causative factor of the disease. From 1885 to 1895 the disease appeared more generally in Germany than it had previously.

The most notable accounts of cerebrospinal meningitis during this time are those by Blümm,[37] who described several small epidemics occurring in Bavaria; Leichtenstein,[38] who published an excellent account of the disease as it occurred in the Rhine Province; Bonome,[39] whose articles on the bacteriology of cerebrospinal meningitis are very good; Lor,[40] who described localized epidemics in the eastern counties of England; Flexner and Barber's description of an outbreak of cerebrospinal meningitis at Lonaconing; Petersen's[42] article on the epidemiology of cerebrospinal meningitis, and Lemoine's[43] report of an epidemic in France in 1891. Since 1895 numerous epidemics have occurred, both at home and abroad; among the more important is the epidemic in Boston in 1897, which has been ably described by Councilman, Mallory and Wright[44]; in the same year there occurred an epidemic in Wuertemberg, which was reported by Benedict.[45] In the winter of 1897–98 a great number of deaths were reported as occurring among the modern Argonauts of the Klondike. During the early part of 1898 a severe epidemic raged in Trifail in Austria, while epidemics and sporadic cases were reported as occurring in different places in the United States, among others Los Angeles,[46] St. Paul[47] and among the soldiers at Chickamauga Park, Ga. The epidemic in Chicago began in January, 1898.

ETIOLOGY.

In treating on the etiology of this disease each factor will be considered under a separate heading, since by doing so it will be easier for the reader to get a view of the entire subject.

Epidemic nature.—As a rule, this disease occurs in well-marked epidemics, as is seen from the preceding chapter; sporadic cases, however, are of frequent occurrence, especially in the larger cities, very closely resembling diphtheria in this respect. The writer is of the opinion that these sporadic cases are of more frequent occurrence than is generally conceded to be the case. The infrequency with which postmortem examinations, particularly those of the head, are made, probably accounts for their apparent rarity.

Age.—The disease attacks children and young adults chiefly, although cases may also occur among persons more advanced in life. In Chicago quite a large percentage of cases occurred between the ages of 30 and 40 years, as is shown by the following figures: Under 1 year, 3; between 1 and 5 years, 6; between 5 and 10 years, 3; between 10 and 15 years, 1; between 15 and 20 years, 7; between 20 and 25 years, 6; between 25 and 30 years, 2; between 30 and 40 years, 7; over 40 years, 3. Total, 38. These figures coincide with those found in the majority of recent epidemics. During those occurring in the early part of the present century, adults were less often affected, the disease occurring almost exclusively in young children.

Sex.—Sex does not seem to be a factor of much importance in the etiology of this disease, although males appear to be rather more liable to contract it than females. In our series of cases there were twenty-four cases in males and fourteen in females.

Season.—The majority of epidemics have occurred during the latter part of winter and during spring, the greatest number of cases in Chicago being during April and May. Berg[76] gives some interesting statistics on the number of deaths from cerebrospinal meningitis in New York City during the years 1892 and 1893; they are as follows:

	1892	1893
January	15	22
February	8	19
March	30	53
April	27	54
May	30	107
June	23	58
July	27	52
August	20	25
September	15	19
October	12	24
November	14	19
December	9	17
Totals	230	469

Meteorologic factors.—It has been frequently noticed that epidemics of cerebrospinal meningitis occur after a cold winter followed by a cold, wet spring. Such was the case, among others, in the epidemic

described by Ford[77] and Brooks[78] in central New York. The meteorologic data for Chicago were as follows:

Month.	Temperature, 1897-98.	Mean for twenty-five years.	Monthly precipitation, 1897-98.	Mean for twenty-five years.	Prevailing direction of wind, 1897-98.
September	70	64	0.84	2.93	N.E.
October	58	52	0.18	2.93	S.E.
November	38.7	38	3.06	2.82	S.
December	25	30	1.62	2.34	W.
January	28	23	3.54	2.11	W.
February	28	27	2.59	2.31	S.
March	40	34	4.60	2.40	S.
April	44	46	0.76	3.22	N.
May	56	56	2.23	3.72	N.E.
June	69	67	5.30	3.80	N.E.
July	73	72	1.94	3.49	N.E.
August	72	73	3.03	2.98	S.W.

From the above tables it will be seen that although the winter of 1897-98 was not very cold, it was a very wet one; the months of January, February and March presented very changeable weather, with a great deal of slush and rain.

Association with other diseases.—There is no distinct connection between the occurrence of cerebrospinal meningitis and the prevalence of other diseases occurring simultaneously in a community. Typhoid fever has in some instances, among others in Litchfield and Norwich, followed an epidemic of cerebrospinal meningitis. Epidemics of pneumonia have also frequently occurred simultaneously with epidemics of cerebrospinal meningitis, but these coincidences are considered by modern writers to be purely accidental.

Relative prevalence in city and country.—It has been generally noted that this disease is comparatively more prevalent in farming districts and smaller towns than in our large cities. Osler[29] states that in 1873 the disease was very prevalent in the rural districts of the Ottawa River valley, while the cities of Ottawa and Montreal remained comparatively immune. There is no reason known that will explain this fact satisfactorily.

Nasopharyngeal disease as a predisposing factor.—Weichselbaum, Yaeger and others have expressed it as their opinion that in the majority of instances, the germ which causes the meningitis gains access to the meninges through the nasal cavities, and the meningococcus has frequently been found in the nasal secretions. Considering this fact, it appears plausible that when the mucous membrane of these areas is in a diseased condition, it will afford a better nidus for the growth of the germ and its conveyance to adjacent parts. A large number of observers, among them Richter, Strümpell, Councilman, Mallory and Wright, have found nasal catarrh in a large percentage of the cases observed by them.

Overcrowding, etc.—The disease has been often noted in overcrowded transport vessels, jails, etc. It is, however, hardly probable that the overcrowding in itself should have been the predisposing cause, except in so far as to render the observation of sanitary rules more difficult. The bacteriologic causes, and the influences which unsanitary conditions exert over the disease will be considered elsewhere.

PATHOLOGY AND BACTERIOLOGY.

The pathology of epidemic cerebrospinal meningitis is essentially that of a purulent inflammation of the inner coverings of the brain and cord. The exudate is often localized in the basal region of the brain, more particularly in the neighborhood of the cerebellum, frequently, however, the purulent exudate covers the entire convexity in a thick layer. The greatest accumulations of pus are usually found along the course of the larger blood-vessels, and in the fissures and sulci of the convexity of the brain. But rarely—and then only in cases of a very virulent character—has an entire absence of exudate been found; in these cases there was only a serous effusion, and in some few cases, only an intense congestion of the meninges. The spinal cord is usually affected in a similar degree, generally being covered with an extensive layer of purulent exudate. The more recent the process, the more purely purulent is the exudate, often bearing close resemblance to gonorrheal pus. In cases of longer duration the pus is frequently caseous in character and has undergone more or less fatty degeneration. Very frequently the ventricles contain an exudate, purely purulent in more recent cases, while in those of longer standing the ependyma is coated with crumbly, cheesy masses. As a rule the brain substance itself is not implicated in the process, Ghon, however, in his series of postmortems in Trifail, found in the brain substance of some of the cases, purulent encephalitic areas, either localized in the cortical area or studding the entire brain substance.

In a postmortem made by Thompson,[55] the cord and brain were so extensively degenerated as to be unfit for microscopic examination. In the spinal cord the posterior surface is chiefly affected, the exudate being greatest in the lumbar region. The substance of the cord is frequently the seat of minute hemorrhages. Councilman[44] states that in the more chronic cases the most marked condition is the edema and general thickening of the meninges. The change is most marked in those areas where the acute process is most evident. Along the vessels the meninges are thickened and whitish, with little exudation. At the base the meninges are opaque, enormously thickened, and there are bands of organized tissue extending from point to point. Microscopically the main change is a purulent infiltration of the meninges and the superficial layers of the cortex of the brain. The pus-cells may be found either closely packed together or scattered here and there; sometimes they are enclosed in a network of fibrin. The fixed tissue-cells, as a rule, show little change. The blood-vessels are injected and, usually, those of the meninges are packed with lencocytes. Thrombi are also occasionally met with.

Among the chief pathologic changes in the other organs are inflammations of the bronchi and lobular pneumonia; these pneumonias were formerly considered by various authors to be the starting-point of the infection; they are now generally looked upon as accidental complications, due to the diplococcus pneumoniæ. The heart muscle is generally found to present areas of parenchymatous degeneration; sometimes fatty degeneration is also found. The liver is usually similarly degenerated, with considerable difference in the degree of the degeneration in the different cases. In uncomplicated cases the spleen is seldom much enlarged. The stomach and intestinal tract present no constant lesions; the kidneys are generally found to be more or less degenerated. In the epidemic at Trifail, Ghon found in a number of cases a very intense desquamative catarrh of the mucous membrane of the pelvis and pyramids; frequently this condition was associated with numerous hemorrhagic spots in the areas mentioned.

Biggs[65] found in one case innumerable hemorrhages in the wall of the bladder, associated with some superficial erosions and deposits of fibrin, which process had extended up the ureter and involved the pelvis of the kidney. The pathology of the accidental complications presents nothing characteristic of the disease.

The bacteriology of this disease has been a question which has given rise to much discussion among writers on this subject; at this date, however, the evidence seems to be in favor of the diplococcus intracellularis meningitidis being the causative factor in the majority of cases. This organism was first described by Weichselbaum, in 1887, who found it in the meninges of six cases of acute cerebrospinal meningitis. As described by Mallory,[44] it is a micrococcus of about the same size as the ordinary pus micrococci, and appears in diplococcus form of two hemispheres separated by an unstained interval. It stains with any of the ordinary stains for bacteria, and is decolorized by the Gram method of staining. There is considerable irregularity in staining, some organisms being more brightly stained than the other. There may also be considerable variation in size, and the larger organisms stain imperfectly. In the smaller organisms there is often a brightly stained point in the center, while the remainder of the cell is scarcely colored. These variations in size and in staining appear to be due to degeneration, and are more common in old than in fresh cultures. The two organisms are usually sharply separated, but in some there seems to be a small amount of material uniting them. Division commonly takes place in one plane, giving rise to diplococci; tetrads are occasionally seen. There is little or no tendency to growth in the streptococcus form, although short chains of four to six organisms may be found. In cultures the organism does not grow profusely; blood serum is the best culture-medium, while on agar the growth is scanty; in bouillon the growth is also feeble, the medium becoming slightly cloudy.

Ghon of Vienna considers the meningococcus as closely allied to the gonococcus, especially as its method of division is identic and also since it, as well as the gonococcus, is found within the cells. According to Ghon, the meningococcus grows poorly on glycerin-agar, fairly well on plain agar, and best of all on blood-serum-agar, on which culture-medium it forms colonies identic with those of the gonococcus. On bouillon it forms a thin scum on the surface, after a few days' growth, in this respect also resembling the gonococcus. At ordinary room temperature there is no growth, this being the reason that it does not grow on gelatin. On potato there is a feeble growth. In order to have a continuous growth of the meningococcus, it is necessary, according to Ghon: 1, to protect the cultures from drying out; 2, to keep the cultures in a thermostat, at a constant temperature, not below 25 C. By observing these rules it has been possible for him to keep cultures of the meningococcus viable for seventy days; to the gonococcus the same rules apply, with like results when observed. In regard to the number of meningococci found in the cerebral exudate, the same author states that as a rule in cases of only a few days' standing the number is very great, cell upon cell being filled with the organisms, presenting a picture identic with that found in acute gonorrhea. After a few days the number of cocci diminishes greatly, and it is just this absence of bacteria which is, according to him, characteristic of epidemic cerebrospinal meningitis. The disease may relapse, and then the cocci will again be present for a few days. In the nasal secretion, even in the absence of a nasal catarrh, both Jaeger and Ghon have found large numbers of meningococci. Fronz,[66] in a case of arthritis complicating cerebrospinal meningitis, obtained a pure culture from the joint, no other bacteria being present. Bonome[67] thinks a variety of organisms can cause epidemic cerebrospinal meningitis, which he classifies as follows:

1. The diplococcus intracellularis meningitides.

2. Streptococcus pyogenes, found present in one case by Neuman, and four times by Netter in isolated cases.

3. A short thick bacillus found by Neuman and Schaefer; it resembles the typhoid bacillus, but its growth on potato is different.

4. An encapsulated bacterium which was found in one case due to otitis media; it resembles the pneumobacillus of Friedlaender.

5. The diplococcus pneumoniæ of Fraenkel, which is the most frequent causative factor of cerebrospinal meningitis. Holt and Prudden,[68] in their description of a case of cerebrospinal meningitis, in 1891, considered the pneumococcus as the offending micro-organism.

Biggs,[69] in a series of cases from which cultures were made, found no one constant organism; the majority of the cases showed the diplococcus pneumoniæ, which he considers as the chief etiologic factor; other organisms found were the pneumococcus of Friedlaender, bacillus of influenza and the streptococcus pyogenes; in one case the bacillus coli communis was found in the exudate from the base of the brain. In cases complicated with dysentery, occurring during the epidemic at Lonaconing, the stools, according to Flexner and Barker,[41] contained an organism identic with the micrococcus lanceolatus. Klemperer[70] found pneumococci in the watery contents of herpes, occurring in cases of cerebrospinal meningitis. Onadu[71] found the diplococcus of pneumonia in the blood of a meningitis patient. Spitzer[72] also considers the pneumococcus as the cause. As the meningococcus in a superficial examination may be confused with the pneumococcus, it is possible that some of the cases reported as being due to the pneumococcus were really caused by the meningococcus. To differentiate the two, Heubner[73] states:

1. The meningococci are found chiefly in the pus-cells, less so in the fluid; pneumococci found in fluid.

2. They always occur in pairs, with the broad sides against each other, while the pneumococci join with their narrow sides.

Jaeger[73] also calls attention to these differential features and states that they are constant. To differentiate between the meningococcus and the gonococcus, Kiefer[74] states that the gonococci are more uniform in size, that in the exudate from a case due to the meningococcus about 90 per cent. of the leucocytes are filled with the cocci, while in gonorrheal pus only a small number of leucocytes contain the organism. This author, however, does not agree with Jaegar in regard to two differential points, viz., that the gonococci do not occur in the nuclei of cells and that the meningococci found within the nuclei possess a capsule. These two statements Kiefer opposes, and states that the gonococci are also not infrequently found within the nuclei; and that the picture then presented by them is identic with that shown by the meningococci. The writer is of the opinion that if the meningococ-

cus and the gonococcus are not identic organisms, they are at any rate closely related, as is shown by the comparative frequency with which young men affected with gonorrhea are attacked by meningitis during the presence of an epidemic of this disease; we refer in this respect to a report by Fuerbringer[75] and to cases occurring during the Chicago epidemic.

(To be continued.)

TRACHOMA FOLLICULARE.

RUPTURE THE FOLLICLES WITH A TRACHOMA FORCEP AND EVACUATE THEIR CONTENTS. USE AN ASEPTIC SALINE SOLUTION FOR IRRIGATION.

Read before the McLean County Medical Society, March 2, 1899.

BY J. WHITEFIELD SMITH, M.D.

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BLOOMINGTON, ILL.

Conjunctivitis trachomatosa may be defined as an infectious inflammatory disease of the conjunctiva. It is characterized by a purulent secretion, and in the chronic forms by an hypertrophy of the conjunctiva. It is also distinguished by the presence of a special micrococcus (Sattler and Poucet). The conjunctiva is divided into three divisions: The portion which covers the posterior surface of the lids is called the conjunctiva palpebrarum or conjunctiva tarsi. The portion reflected over the anterior surface of the eyeball is the conjunctiva bulbi, and the conjunctiva which connects these two portions constitutes the third division, known as the conjunctiva fornicis.

The conjunctiva differs somewhat in structure and function in its various portions. The palpebral portion is the thickest and most vascular part. It is also more freely supplied with nerves. It is intimately united to the tarsus, and the lens shows small folds in its structure. This portion contains small papillæ and is covered with a laminated cylindric epithelium. There are no glands in the palpebral conjunctiva. The conjunctiva bulbi is furthermore divided into two portions: the conjunctiva scleræ and the conjunctiva cornea. The former is a delicate thin membrane, loosely connected to the sclera by connective (episcleral) tissue. It is covered with a laminated pavement epithelium and also contains no glands. The latter is closely adherent to the cornea—indeed forms the superficial layer of the cornea—and consists of pavement epithelium, or rather a stratified kind of epithelium. This portion is also devoid of glands.

The middle portion of the conjunctiva, the conjunctiva fornicis, is of adenoid character. It contains the Waldeyer's glands (mucous), Krause's glands (mucous), and lymphoid glands (lymph corpuscles). The conjunctiva at the folds of transition is very freely supplied with blood-vessels, there are a few papillæ of large size, and the membrane is covered with cylindric epithelium. We may notice from this brief description of the conjunctiva that it differs in structure in its various portions, and that it is also modified in its epithelial coverings.

An important difference to be noted is that the conjunctiva of the fornix is of adenoid character, and as this is a favorite location for one form of trachoma, as is the conjunctiva tarsi for another form, it will be worth our while to consider the anatomic elements of their respective structures. Two forms of proliferation or hypertrophy are usually described—the papillary form and the granular form. The papillary form of trachoma is limited practically to the conjunctiva tarsi, and is especially prominent in the upper lid. The granular form of hypertrophy seems to have a selective tendency for its development in the folds of transition. These granules are round, like translucent nodules, of a grayish or yellowish color. These two forms may be regarded as the same disease, as the same cause may produce these different forms, and indeed the two forms may coexist, producing a mixed variety of trachoma. No doubt the different structural elements of the conjunctiva influence the disease process and present the various clinical appearances. However, we shall not investigate the theories of the etiology, pathology nor symptomatology of trachoma; but rather notice the therapeutic measures that look forward to a cure of the disease. In the consideration of trachoma and its treatment, we are having to do with a disease that reaches far back in the world's history—even to the remotest antiquity. We are told that the ancients employed scarification of the conjunctiva by the use of various instruments.

The pharmacopeia has been very thoroughly canvassed for remedial agents, and a number of operations have been devised to meet the exigencies of the respective cases under observation. The rational treatment of trachoma has for its object, aside from any complications that may have arisen during the progress of the disease: 1, the resolution of the inflammation, together with the abatement of the secretion; and 2, the displacement of the hypertrophy. The methods of accomplishing these results have led to a great diversity of opinion.

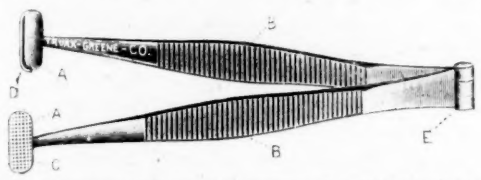
Of the remedies held in popular repute may be mentioned for local application: The caustics—nitrate of silver, sulphate of copper, and bichlorid of mercury; the astringents—tannin, alum, sulphate of zinc, acetate of lead, etc.; the antiseptic lotions—carbolic acid, boracic acid and weak solutions of bichlorid of mercury; powders and ointments—iodoform, aristol, calomel, etc. Of the operative procedures, various methods have also been employed, among which may be mentioned: scarification, excision, abscission, emptying the follicles with a lance or needle, galvanocautery, curettement, squeezing the granules out, either with or without previous scarification, by special kinds of forceps, electrolysis, friction with a stiff brush, etc. The danger arising from the employment of these mechanic means is the cicatrix or scar resulting from the operation, causing deformities in the lids.

Constitutional treatment by general medication also seems to be necessary in a great many instances. Trachoma is not regarded as a disease of constitutional origin, and yet many trachoma patients have blood dyscrasia, and suffer from malnutrition and unsanitary surroundings which should require attention. Tonics and alteratives are usually indicated. Of the former, iron, cod-liver-oil, arsenic, strychnia and the hypophosphites are suggested; of the latter, the iodids and mercurial preparations are useful. In view of the fact that in chronic trachoma particularly involving the folds of transition (the portion of the conjunctiva which contains the glands, and which is of adenoid character) perhaps not enough attention is paid to the alteratives in the general medication, we might expect more gratifying results from the energetic administration of some of the more valuable mineral and vegetable alteratives in some cases.

In the treatment of trachoma from a surgical point of view we may be quite agreed as to the essentials and the object to be attained by operative procedure, but as respects the methods of attaining these results, a very wide range of opinion perhaps exists. At this juncture I desire to call your attention to a trachoma forceps that seems to me to have some advantages in the surgical treatment of chronic trachoma.

In operating on the upper lid the use of the instrument may be described as follows: First push the smooth surface of the blade of the forceps up under the lower surface of the inverted lid, and by gently squeezing the arms of the forceps together the cutting surface of the opposing blade of the forceps would be brought in contact with the upper surface of the inverted lid, directly on the granular bodies. By a little firmer pressure the teeth of the cutting blade would pierce the crests of the follicles or granules and thus facilitate the emptying of their contents. After piercing the follicles in this location, the arms of the forceps should be allowed to spring the blades apart, and then by shifting the blades to another area, and squeezing them together again, we should puncture the follicles of this area, and so on till all the follicles on the upper surface of the inverted lid are ruptured.

Then by changing the relative position of the blades, and placing the cutting surface of the blade up under the inverted lid and the smooth surface of the opposing blade on the upper surface of the lid, previously punctured, by the same procedure as above we should pierce the follicles in this situation. Next, by withdrawing the forceps and reversing them, applying



A A, blades of forceps; B B, arms of forceps; C, cutting surface of blade, containing small sharp teeth; D, expresser; by reversing the forceps, the edges of the expressers are brought together and in their use the contents of the follicles are squeezed out. E, hinge.

them so that the cutting surface would be carried above and the smooth surface of the other blade would be placed between the eyeball and the inverted lid, commencing at the inner angle of the eye, squeezing the forceps together and drawing them toward the outer angle of the eye, all the contents of the previously ruptured follicles could be evacuated.

The advantages to be gained by this method of operation may be summarized as follows:

1. The punctures into the follicles may be made practically of an even depth and they are quite uniform. The resulting scar would be also uniform and regular, thereby producing little deformity, or reducing the deformity to a minimum. In scarification some of the incisions are deep, others again are shallow, while some are deep in some portions and shallow in other portions. The resulting scars in such cases are apt to be irregular and uneven, producing contractions and deformities of the lid, with a rough cicatricial surface.

2. In piercing the granules first and then emptying their contents by gentle pressure, there is not produced a very great degree of traumatism in the conjunctiva, and accordingly there is not much inflammatory reaction. In cases in which the granules are squeezed out without previous scarification or rupturing of the follicles, more force and pressure are required to empty them, and consequently the conjunctiva is lacerated and torn and the tissues bruised to a greater extent, and the inflammatory reaction is also much greater.

3. In puncturing the granules and squeezing out their contents an undue amount of traumatism is avoided. The blood-vessels of the conjunctiva are depleted, which acts favorably on the inflammation, and the mechanic irritation produced by the granules is removed. The reaction following is mild in character, and yet sufficient to favor the absorption of the remaining products of the granules.

4. With due precaution, the only tissue involved in the operation is the granular tissue, and any intervening healthy conjunctiva may not be greatly implicated, whereas, in scarification, the small healthy areas of the conjunctiva are usually included in the incision.

Respecting the preparation of the patient, instruments, dressings, etc., it need only be said that in eye surgery the same precautions are necessary as are required by the ordinary rules of antiseptic surgery. The conjunctiva should be thoroughly anesthetized by the use of cocain or other local anesthetic. Immediately before the operation the conjunctival sac should be thoroughly douched with an antiseptic solution. A saturated solution of boracic acid is a very good one. Immediately after the operation it is more important what kind of cleansing solution we may employ than it was before. Remembering that the dangers arising in operative procedure for trachoma are the resulting scars and contractions, without due care, these may produce greater deformities in the lid than would be occasioned by the disease. Hence, if after operating on the conjunctiva, when the follicles and granules are ruptured and their contents evacuated, we should employ strong antiseptic solutions such as bichlorid of mercury, carbolic acid, iodin lotions, nitrate of silver, etc., they would, on coming in contact with the raw edges of the small wounds, coagulate the albumin of the tissues and glaze their surfaces. These cauterized tissue elements may be looked upon as minute foreign bodies. Tiny though they be, they cannot enter into the healing process, and are cast off at the expense of a corresponding loss of tissue, which is replaced by cicatricial tissue.

An aseptic cleansing solution that may be used to wash away the blood and small coagula, and in fact any detritus that might act as an irritant or promote chemic or septic changes, is a sterilized aqueous solution containing the principal inorganic plasmine elements of the blood. This saline solution is made as follows:

R.	Sodii chlor.	gr. xlii	2	73
	Sodii carb.	gr. xii		78
	Sodii phos.			
	Potasii chlor.			
	Potasii sulph. ãã.	gr. ii		13
	Aquæ destil.	O i	497	60

Fiat solutio.

The solution contains a dram of the potassium and sodium salts to a pint. These are the representative saline elements found in the plasma.

The highest percentage of the inorganic elements of the blood is found in chlorid of sodium. Of its action on animal tissue in weak solutions we may refer to Potter's "Materia Medica, Pharmacy and Therapeutics," p. 370. In speaking of the chlorid, he says: "A solution of 0.65 parts to 100 of water does not destroy animal tissue like water alone, and may be

mixed with blood without destroying the corpuscles, though strong solutions are intensely irritating." By bathing the surface of the lids with this solution the vitality of the conjunctiva is increased rather than decreased; any deposit of the solution becoming entangled between the lips of the wounds is absorbed and the tendency to promote quick union is encouraged. The edges of the wounds occasioned by the puncture are brought in coaptation, and the healing process is not so greatly disturbed. In this way the cicatricial tissue is lessened and the conjunctiva may more nearly regain its normal condition.

After the first few hours following the operation, when the healing process is established by quick union, or by some of the other processes of repair, mild antiseptic irrigation may be used to advantage, relieving the dangers of contamination from without. The employment of antiseptic solutions in eye surgery is not to be deprecated, but the nature of the solution and the modifying circumstances and conditions should always be taken into account in their application.

There is a new connective-tissue element formed by the inflammatory infiltration, which shrinks more or less in the trachomatous process. This should not be confounded with the cicatrix due to operative measures.

506 Griesheim Bldg.

URIC ACID.

A FACTOR IN THE CAUSATION OF CHOROIDITIS.

Read before the Fourth Annual Meeting of the Western Ophthalmologic and Otolaryngologic Association, held at New Orleans, La., Feb. 10 and 11, 1899.

BY RANDOLPH BRUNSON, M.D.

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HOT SPRINGS, ARK.

In all my reading and research in this direction I have been greatly impressed with the dearth of written knowledge upon this subject, and so concluded to present to this Society a short paper embodying my experience with this class of cases. Perhaps there is no place in the entire country where the oculist will see so many cases of choroiditis, iritis, etc., as may be seen at Hot Springs, Ark., where patients come from every quarter of the globe. It has been a routine practice in every case of choroiditis to first begin treatment with mercury and the iodids in conjunction with the hot baths. A few years ago, after repeated failures to obtain the anticipated results from such treatment, it occurred to me that there must be some common pathologic factor other than syphilis to cause this disease, and I began to investigate closely and changed my method of treatment, especially in those obscure cases where no positive diagnosis of syphilis could be made, and as a result, my efforts toward a cure were in many cases rewarded by a clearing up of the trouble by the use of the salicylates, after the patient had been given, either by myself or the gentleman who had referred the patient to me, a thorough course of antisyphilitic treatment without effect. If we will bear in mind the close anatomic relationship between the choroid and the iris, will we be surprised to know that if uric acid, causes a disturbance in the latter, why it should not in the former?

The second tunic of the eye is formed by the choroid behind, and the iris and ciliary processes in front. The choroid is the vascular and pigmentary tunic of the eyeball, investing the posterior five-sixths of the globe and extending as far forward as the iris. The middle layer consists of an exceedingly fine capillary plexus formed by the short ciliary vessels. About half an inch behind the cornea its meshes become larger and are continuous with those of the ciliary process. The ciliary processes are formed by the plaiting and folding inward of the middle and internal layers of the choroids at its anterior margin, and are received between corresponding foldings of the suspensory ligaments of the lens, thus establishing a communication between the choroid and inner tunic of the eye, the larger processes being attached at their periphery to the ciliary ligament, and with the middle and inner layers of the choroid, their anterior surface is turned toward the back of the iris, with the circumference of which it is continuous.

The capillary network of the choroid is the finest and closest in the body. Its total area is at least 800 times greater than that of the short posterior ciliaries from which they arise. In consequence of the law that the velocity of a current in a tube is inversely to its lumen, the velocity of their capillary current must be very many times less than that of the short posterior ciliary artery. The choroid presents another peculiar feature: its vessels are arranged in superimposed layers, progressively diminishing in size from without inward. In the profound chronic toxemias produced by uric acid the earliest manifestations of the long series of necrobiotic changes are found in the arterioles and capillaries. Here the blood-current is slower than elsewhere, and the blood, charged with toxic substances, is in contact with the delicate structure of these minute vessels much longer than in the larger arteries and veins. Haig, in his admirable work on uric acid claims that, "If uric acid affects the arteries in the way and to the extent to which it does, it must influence for good or evil, the function, nutrition and structure of every tissue and organ of the body, from the skin outside to the most central fibers of the spinal cord and brain within." Free uric acid in the blood does cause contraction of the arterioles, and by this interference with interstitial circulation becomes the prime factor in pathologic changes in every tissue and organ in the body.

Mr. Standford Morton[1] relates that he "saw stasis or thrombosis in the vessels of the retina in one or two cases taking place during an attack of megrim, and there is every probability that these troubles were due to uric acid," and if this can take place in the retina, why not in the choroid? Haig sums up one of his brilliant theses as follows: "If my premises are good and my deductions sound, and if uric acid really influences the circulation to the extent which I have been led to believe it does, it follows that uric acid really dominates the function, nutrition and structures of the human body to an extent which has never yet been dreamed of in our philosophy; and in place of affecting the structure of a few comparatively insignificant fibrous tissues in which it is found after death, it may really direct the development, life history and final decay and dissolution of every tissue, from the most important nerve centers and the most active glands to the matrix of the nails and the structure of the skin and hair."

In many cases we have associated with choroiditis

of this form typic symptoms of rheumatic iritis also; again, we have the one without the other complication, and upon close observation we find that if the patient has the explosion of uric acid in other parts of the body, the choroid and iris are comparatively free from this trouble until these symptoms have subsided, when we have a recurrent attack of choroiditis, or iritis, or both at the same time. It is not necessarily the case that a well-defined history of rheumatism may be found in order to make the proper diagnosis of the case. If we can discover even any remote symptoms of uric acid after we have eliminated other causes by exclusion, it will guide us in obtaining the line of treatment necessary to perfect a cure.

It frequently happens that no assignable cause can be found for the condition existing in the choroid, the patient does not give a history of rheumatism, yet if uric acid be found and everything else has been done to eradicate this condition of the choroid, and the salicylates are at last administered, the inflammatory process subsides like magic. The changes in the fundus of the eye may be entirely confined to one eye, or may affect both, and may be evenly distributed all over the fundus, or confined to a limited area. The uveal pigment and bacillary of the overlying retina may become affected also, and hence the term "chorio-retinitis" is often a more suitable name than simple choroiditis. Patches of atrophy appear as rounded areas from one-fourth to one disc's diameter, or a little larger, bounded by a ring of black pigment, the entire surface within the ring is white, or bluish white and glistening, and shows no trace of choroidal vessels or pigment. The appearance of the fundus between the atrophic spots is usually normal. In other places we may find similar patches showing very small splashes of pigment on the exposed sclerotic; in other patches again are seen the choroidal vessels unchanged, or with partial or complete obliteration of the blood-streams, from endarteritis, appearing as white or yellowish white strands. At the diseased spots the outer layers of the retina are always more or less infiltrated with the pigment. These foci of inflammation, just as in any other form of the disease, leave the atrophic spots, and thereby interfere with perfect vision. We find on examination of the urine from day to day an increase of uric acid excreted, under the influence of the salicylates, hot baths and a vegetarian diet. It is not necessary to probably weary you with the line of treatment in detail for this class of patients, as any drug which will increase the solubility of uric acid will eliminate the disease through the excretory organs.

I can not refrain, however, from extolling the benefits to be derived from the hot-water treatment as given at the Hot Springs of Arkansas, in conjunction with other remedies, as in many cases this will alone bring about a decided improvement without the aid of the salicylates. This assertion is founded upon facts. I will close by admonishing you to carefully examine the urine in these puzzling cases of choroiditis to find the relative proportion of uric acid to urea, and if you do not find it to be 1 to 33 or thereabout it will show that the uric acid is not being properly eliminated, and in all probability is the cause of the choroiditis.

[1] Ophthalmic Review, March, 1890.

Let us have a Department of Public Health!

LA GRIPPE.

ITS MANIFESTATIONS, COMPLICATIONS, AND TREATMENT.

BY W. W. GRUBE, A.M., M.D.

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TOLEDO, OHIO.

The most popular subject of discussion by the laity and by the profession as well, is undoubtedly la grippe. The multiform manifestations or forms it assumes, together with the serious complications and sequelæ which are so frequent in the present epidemic, render it a fruitful and interesting theme for discussion. While some excellent physicians are rather sceptic and aver that the diagnosis is far too frequent, that there are comparatively few cases of genuine "grippe," it seems to the writer that the characteristic symptoms are so clear that the intelligent observer need not err. The intensity of the catarrhal symptoms, peculiar pains, great prostration, and tardy convalescence form a typic clinical picture.

While the catarrhal symptoms are usually limited to the respiratory mucous membrane, they are not always so, and in the writer's experience in this epidemic, the invasion of the mucous membrane of the digestive tract has been quite frequent. Not alone mucous membrane, but a part or all of the cerebro-spinal axis has been invaded. So constantly has it seemed to expend its force on one or the other of these localities, that excellent authority has been pleased to classify it into "The Abdominal Form," "Head Type," and "Spinal Type." However, in some cases, it has seemed that none of these organs or systems has escaped, though one may be the most seriously affected.

In many cases the so-called complications are simply an extension and aggravation of the catarrhal or inflammatory condition; thus an extension of the usual inflammatory condition of the throat through the Eustachian tube produces middle-ear complication; the bronchitis may extend and become capillary, or even a pneumonitis may result. So we believe that in the so-called abdominal form with severe gastro-enteric catarrh, it may extend by *contiguity* and inaugurate a general peritonitis.

It is only upon this theory that we can explain the supervention of a severe general peritonitis in a case under our care, now happily terminating in convalescence.

A little girl of 11 years, previously healthy, never seriously ill before, of German parentage, was taken ill February 10, with unmistakable symptoms of "grippe," which seemed to include all the several forms, almost every organ or tissue in the body being affected. When I first saw her, twenty-four hours after the illness began, she presented the following alarming symptoms: high temperature, extreme restlessness, wild delirium, constant emesis, involuntary, frequent and copious discharge of feces and urine. She coughed and had complained of pain in the chest. Prescribed calomel in small and frequent doses with bismuth, also potassium bromid and chloral. Vomiting ceased and she rested, but on the third or fourth day she developed symptoms of peritonitis, abdominal pain, hardness and some tympanites, etc. Prescribed calomel, twenty grains divided into four powders, one every three hours, also the usual turpentin stupes, morphia to quiet pain, etc. The next day, finding no improvement, but rather aggravated symptoms—green vomit, bowels not moved—I gave a very gloomy prognosis, and at the family's request called a consultant, who concurred in diagnosis and prognosis and had nothing more to suggest.

However, on my return in the evening I decided, in view of the great mortality of these cases by the routine treatment, to try the local application of a mustard poultice, and gave internally hydrozone diluted in frequent doses, alternating with doses of glycozone, for their germicidal, antiseptic and healing

qualities. In twenty-four hours there was slight improvement, and in forty-eight hours she was decidedly better. Improvement continued, and she was so well February 21 that I dismissed the case.

Perhaps the most common complication in children is the middle-ear inflammation, caused by extension of the pharyngeal catarrh up the Eustachian tube into the tympanum, while very unusual phenomena are furnished by trophic disturbances. As a result of the vagaries of the trophic nervous system, we may have well-marked cutaneous eruptions, which may be confounded with the exanthematous eruptions.

In the case of a child six months old, recently under our care, we had a middle-ear complication and also an eczema capitis, which involved the greater part of the scalp when we first saw the case. The pain in the ear was controlled by the usual methods and by the instillation into the ear canal of a few drops of cocain solution. After suppuration occurred, the canal was cleansed by hydrozone solution (warm) and a piece of absorbent cotton saturated with glycozone used as a dressing by inserting it into the canal. The eczema was treated in the same manner, and the result was in both conditions, surprisingly rapid healing and cure. As the ear complications sometimes prove very serious, it is very gratifying to know that in the above remedies we have a safe, speedy and effectual method of cure, and we believe also that, if these cases were seen early, by proper treatment, the extension and consequent complication might be prevented.

In a little girl with severe tonsillitis and pharyngitis we are spraying the throat with diluted hydrozone and applying glycozone with such marked benefit that on this, the third day of treatment, she is almost well.

In these cases early and effective treatment is surely of much importance, and while we do not usually indulge in extolling the virtues of any remedy or pharmaceutic preparation, we believe that a remedy which possesses such powerful germicidal, antiseptic and healing properties, and yet is devoid of irritating or septic properties, deserves more than a passing notice. In this connection I can not refrain from referring to the case of a prominent city official who had an unusually severe attack of la grippe. All the structures of the nasal cavities were involved in a severe acute catarrh, which progressed to the stage of suppuration. Enormous quantities of pus were secreted, and the location and intensity of the pain led us to fear involvement of the antrum. However, the free use of hydrozone solution by spraying and the application of glycozone soon cleared up the cavity, and in a few days complete cure resulted.

NASAL POLYPUS.

BY CUNDELL JULER, M.D.
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Among growths found in the nose are polypi, innocent pedunculated mucous growths, often resembling a butter-bean in shape, and having the consistency of an oyster with the moist glistening surface of grape pulp. Polypi, in the majority of cases, spring from the mucous membrane adjacent to or covering the middle turbinated body. They very rarely spring from the superior turbinated body or septum; we may see them in the nose, having their origin in the accessory cavities, notably the antrum of Highmore. They are sometimes seen in children, but commonly in adults, in the male more frequently than in the female.

As to their etiology, Bosworth describes the mucous covering of the middle turbinal area as becoming "water soaked," and subsequent pyriform growth is accounted for by anterior stenosis, and suction action in hawking, sniffing, and nose-blowing efforts. Polypi are often the accompaniment of hypertrophic catarrh, especially in such cases as inherit a tendency to polypoid formation.

The symptoms of polypi in the nose are many: persons come complaining of something falling into the nostril, which flops about when they blow the nose, but will not become dislodged; others suffer from sneezing. The amount of stenosis varies from this simple uneasiness to complete closure of both nostrils. There may be a discharge more or less profuse from the mucous membrane of the nose, excited by the presence of the polypi. By some writers asthma and other reflex neuroses have been connected with the presence of nasal polypi. The toneless muffled voice and thick articulation with mouth-breathing tell the tale in advanced cases.

In the examination of the nasal passages cocain is very useful, especially where the view is obstructed by capillary engorgement, and hypertrophy of the inferior turbinated body. Soak a flattened pledget of cotton with a 10 per cent. solution of cocain, and pass it into the nose by means of a probe, so that it covers and comes in direct contact with the inferior turbinated body; leave it *in situ* from two to five minutes, and when the pledget is removed we generally have a clear view, which is an aid not only in detecting polypi or other growths, but gives us more space and better light for their removal. The middle turbinated body, especially when enlarged, hanging, as it does, into the cavity, is sometimes mistaken for a polypus. Cocain applied here in the manner mentioned above will temporarily shrink up the swollen mucous membrane, while, if it is polypoid, it will remain much the same in size. It is important that the patient be instructed not to swallow any of the cocain should it reach the pharynx, as rather troublesome symptoms may arise in some persons from this mistake. Each side of the nose should be thoroughly examined by this means; and then by the use of the rhinoscope we can explore the posterior nares, as there are often true nasal polypi or polypoid hypertrophies of the posterior ends of the turbinated bodies either obstructing directly the Eustachian orifice or supporting a postnasal catarrh, leading to ear symptoms.

The only satisfactory treatment for nasal polypi is thorough removal, followed by remedies which will restore health to the soil from which they grew.

Wright's cold snare is the best contrivance for removing soft intranasal growths, as it is easily manipulated, by the thumb working a lever, and requires but a small loop of wire, which can be quickly adjusted. A pair of Wilde's ear forceps are useful in grasping the polypus, after the snare has set it free. The hemorrhage following the operation is seldom alarming, and can, as a rule, be checked by packing the nose with cotton; or should this fail, pledgets of cotton soaked with a 10 per cent. solution of cocain or a 5 per cent. solution of antipyrin will usually succeed, although in any intranasal operation Bellocq's canula or a similar contrivance for pulling a plug of cotton or lint into the posterior nares should be at hand among our instruments.

After removal true polypi return rapidly, hence it is necessary to have the case under observation; the base of each polypus should be cauterized with trichloracetic acid or the galvanocautery. Should a young polypus be detected it should be removed at once, and its base treated accordingly. The nasal passages should be kept cleansed with some simple collunarium, such as chlorate of potash and bicarbonate of soda in water at 95 degrees F., followed by a spray of some bland protective, such as albolin or vaselin, to the cauterized surfaces and mucous membrane. This local treatment conjoined with such drugs as will improve the constitutional condition of the patient, as arsenic, syrup of the iodid of iron, or the hypophosphites, will soon bring us our just reward.

TREATMENT OF GONORRHEAL URETHRITIS.

BY VICTOR F. MUELLER, M.D., CH.D.

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The controversy among medical men regarding the treatment of gonorrheal urethritis has long been on, and will continue until some genius comes forth with a true specific for this affection. This difference of opinion, with the many different methods of treatment employed and recommended, has not failed to make an impression upon the thinking public which does not tend to strengthen their confidence in our medical ability. I regret having no specific treatment (in its true sense) to offer, but firmly believe that the great majority of cases of gonorrheal urethritis would be speedily cured if the principles and methods of treatment herein given were carefully followed in all cases.

The use of astringent or antiseptic solutions by means of the urethral syringe as a routine treatment is to be condemned, as it is not based upon rational or scientific principles. The therapeusis of every case must depend upon an exact diagnosis made by microscopic examinations of the secretions, as well as the thorough understanding of the localization of the disease, its intensity and the character of the complications where such may exist. If we expect to find a specific for this disease, we must look forward to a therapeutic agent which has a decided antibacterial action on the deeper structure of the mucosa and the superficial layers of the submucosa without causing excessive irritation, and which does not coagulate albumin or enter into combination with albuminates. Furthermore, if it possess antiphlogistic properties, its value, especially in the acute stage, will be greatly enhanced. Among all the therapeutic agents at our command we find none which will fully satisfy these demands; but nevertheless we have in ichthyol a preparation which comes closer to the ideal of a specific than any other.

Ichthyol[1] (ammonium-ichthyol-sulphonate) is a thickish reddish-brown liquid of the consistency of syrup, with a bituminous taste and odor. It has antiphlogistic, anodyne, alterative, antipruritic, antiseptic, and astringent properties. Its peculiar virtues are largely ascribed to the large amount of sulphur it contains—being about 15 per cent. sulphur combined partly with oxygen and partly with carbon. It is readily soluble in water and mixes nicely with glycerin. When applied locally it acts as a reducing agent, abstracting oxygen from the tissues; hence its application is followed by a diminution of heat, a reduction of swelling, paling of the tissues, and a relief of pain (Unna). Moreover, the drug undoubtedly inhibits bacterial development, as proved by the experiments of Fessler and Klein. Neisser states that a 1 per cent. solution will destroy gonococci, which I believe to be able to verify from data obtained by recent experiments made by myself. I fully agree with P. Colombini,[2] that ichthyol is the best remedy for genito-urinary affections of blennorrhagic origin. Villetti[3] strongly advises its use in acute urethritis. R. Coltman, Jr., H. Lohnstein, Colosanti, M. le Tanneur, Lorain and others have used it with the most brilliant results. By using in addition to the ichthyol injections, copious irrigations of a solution of permanganate of potassium (1/12000 to 1/3000), we have a treatment which lacks in nothing but being a specific.

Prophylactic treatment.—After suspicious intercourse, the glans penis should be thoroughly washed and the urine passed in a full stream, which is suddenly checked by occluding the meatus. This will distend the anterior urethra, causing the water to penetrate to all portions of the fossa navicularis and the lacuna magna. The water passed in this way acts as a thorough irrigation to the anterior urethra and lacks the disadvantage of irritating injections. A 2 per cent. solution of ichthyol in water may then be injected. Pressure is brought to bear upon the urethra, back of the fossa navicularis, and the injection is forced into the urethra so as to fully distend the fossa, and is retained about three minutes. This is twice repeated. This injection is sufficiently strong to destroy gonococci, and will not cause an irritation of the mucous membrane. If these measures are carefully carried out, freedom from infection will be the rule.

Abortive treatment.—The injection of strong solutions of nitrate of silver (20 gr. to the ounce) in the early stages of gonorrhea, with a view of converting the specific process into a simple acute inflammation, should never be employed, as it has proved unsatisfactory and dangerous. Though it may have aborted the disease in some cases, it must not be forgotten that such heroic treatment is very liable to aggravate the condition, causing the inflammatory process to extend and produce turgescence of the glans, marked ardor urinæ, abscess, prostatic congestion, cystitis or epididymitis. However, if a 5 to 10 per cent. solution of ichthyol in water be employed, the results are superior to those obtained from the silver nitrate; it often aborts the disease, and never causes the inflammatory reaction produced by the latter. I have frequently employed this treatment on married men and traveling men, with brilliant results.

Acute anterior gonorrhea.—The success of treatment in this as well as all other forms of gonorrhea greatly depends upon the careful attention to details. I never consider it advisable to prescribe only an injection to be given the patient to use himself. How can a physician expect to treat his patients skilfully, when he orders him to use an injection for a week or ten days, and then report as to progress? Here is where the greater part of the mischief lies. The

[1] Saious' Annual and Analytical Cyclopædia of Practical Medicine, Vol. iii.

[2] P. Colombini: Commentario Clin. della Mal. Cut. e Genito-Urin, Nos. 5-7, 1893.

[3] Villetti: Report of Inst. of Exp. Pharm. of the Royal University of Rome. 1894.

patient, after the lapse of the specified time, reports to his physician, who, upon examination, finds that his patient is worse, probably suffering from a posterior urethritis, due to forced injections into the deep urethra.

Alcoholic beverages must be strictly forbidden; the diet in some cases must be regulated, and internal medication be employed only for the general condition, and to keep the bowels open. Moderate smoking need not be interdicted, as it has a beneficial influence, if any at all. I have never seen any good results follow the administration of santal-oil, cubeb and copaiba, which only derange the digestive organs and do more harm than good. I consider the internal use of salol (1 to 5 grams), or salicylate of soda (3 to 4 grams) per diem, as valuable, as they render the urine slightly antiseptic and aid in preventing the inflammatory process from extending backward to the *pars posterior*. Marked kidney disease is a contraindication to their use. If ardor urinæ be present, 1.3 grams citrate of potash is given per diem. From practical experience, I can not agree with Finger and his followers, who strictly oppose the use of antiseptic injections in the acute stage, and only use such when the acute stage has subsided, or the inflammatory reaction is very mild. Every case of acute gonorrhea presenting itself should be given the following solution at once, to be used from four to six times daily, by means of a urethral syringe: Ichthyol 3 gm., glycerini puri, 32 gm., aquæ dest. q. s., ad 128 gm. The patient is directed to urinate in a full stream and then wash the glans penis thoroughly before using injection. The urethra is then compressed behind the fossa navicularis, and the above solution, which has previously been warmed, is injected so that the entire urethra to the point of compression is distended. The fluid is retained from two to three minutes, and the injection repeated twice.

Janet's method of copious irrigation with a solution of potassium permanganate (1-12000) is employed, as hot as can be borne, twice daily, unless the inflammatory reaction is severe, when these irrigations are commenced on the third day. This irrigation is limited to the anterior urethra, and no force must be employed. Irrigation by means of a catheter is to be condemned, as it is usually followed by posterior urethritis. The strength of the solution is increased daily, until a solution of 1-2000 is reached. Under this treatment the acute symptoms rapidly subside, the discharge becomes mucopurulent and ceases altogether within about two or three weeks. The strength of the solution is then decreased, and treatment continued once daily or every two days for about a week, then once every three to four days, and if at the expiration of this time no gonococci are found, the patient is discharged. Relapse is impossible without reinfection.

Chronic anterior urethritis.—Chronic urethritis is the discharge which continues for more than two weeks, as the result of failure to cure the acute inflammation, and is usually due to stricture or chronic posterior urethritis. The main symptom is a mucopurulent discharge. This may appear only in the form of the morning drop, or mere gluing together of the lips of the meatus, or even as free continuous running. A thorough examination must be made for stricture and localized areas of inflammation. If stricture is found to be present, sounds are passed, beginning with the 22 or 24 French. If the meatus does not admit these, meatotomy should be performed. The sounds should be passed every three days, using one of larger caliber at each séance, and continuing this treatment until the urethra is fully dilated. Copious irrigation of a solution of permanganate of potassium, 1-12000, increased gradually to 1-2000, are used daily to flush out the entire anterior urethra. If foci of inflammation are found, the same are treated by the installation of a few drops of a 5 to 10 per cent. solution of ichthyol in glycerin, by means of Ultsman's deep urethral syringe. These areas of inflammation may also be treated by a direct application of the same solution of ichthyol through a urethroscope. If the urethra be hypersensitive, injections of a 2 per cent. solution of ichthyol in water may be employed to great advantage. A cure is effected in from two to six weeks.

Chronic posterior urethritis.—The main symptoms of this affection are: repeatedly recurring discharge after apparent cure, tenesmus, frequent desire to urinate, clap shreds in the second urine, attack of epididymitis, prostatitis, cystitis, and symptoms of sexual neurasthenia. The urethra should be carefully examined for circumscribed inflammatory areas, infiltration erosions and ulcerations, by means of the endoscope (Gruenfeld, Leiter, Nitze, Otis), urethrometer, olive-point bougies (Otis) or sounds *à boule* (Guyon). The urine should also be examined (test with two glasses) for clap shreds and cloudiness of the urine in the second glass. If by careful examination circumscribed inflammatory areas or ulcerations are discovered, the patient will suffer much pain during such instrumentation, and the urethra will be found extremely sensitive. In these cases ichthyol is especially indicated. The entire anterior urethra is thoroughly irrigated with a 2 to 3 per cent. solution of ichthyol as hot as it can be borne. The patient is then instructed to relax the compressor muscle by trying to urinate, and the fluid will flow into the bladder without any trouble. In this way the entire urethra may be irrigated. In some cases it may be necessary to use a catheter to accomplish irrigation of the prostatic urethra. These irrigations are employed once daily, and after using them for a few days instrumentation of the urethra may be accomplished without pain. Full-sized sounds are to be passed every third day until the urethra is fully dilated. If the prostatic portion be the seat of trouble, the prostatic dilator should be employed and injections of a hot 2 to 3 per cent. solution of ichthyol be made into the rectum by means of a reflow rectal tube. Epididymitis and acute prostatitis are contraindications to instrumentation, but the ichthyol injections may be continued with brilliant results. If foci of inflammation or ulcerations do not quickly subside under the above treatment, then instillations of 5 to 10 per cent. of ichthyol are to be made directly to the point of localization. If the discharge is not checked within two to three weeks, then irrigations of permangate of potassium should be employed in conjunction with the above treatment. By this treatment the most obstinate case can be cured in from five to eight weeks. The course of the disease should be followed by microscopic examinations, and the treatment be continued a week or two after gonococci have disappeared.

Room 5, Metropolitan Block.

BICYCLE SADDLES.

INJURIES PRODUCED THEREBY AND THEIR RATIONAL REMEDY.

BY JOHN L. SHORT, M.D.

ROLLA, MO.

While my association with other cyclists has been limited, it is sufficient, when connected with my medical practice, to enable me to form an opinion as to some of the benefits and ills produced by the wheel. That much benefit is to be derived from a moderate "spin" at the proper hour, for certain patients, is not to be denied. The physical exercise in open air, combined with recreation and pleasure for the mind, is certainly advisable in many cases of neurasthenia, hypochondria, hysteria and other debilities; especially is it to be recommended in many cases of mental derangement. I believe that every insane asylum should be provided with an ample supply of bicycles, and a good track. For all persons who are subject to sedentary life, even though they may seem well, the wheel is not only a source of pleasure and pastime, but nowadays a necessity for health and development of the muscles and nerves.

In order to be a graceful rider, and to promote health, one must sit perfectly erect, with the entire weight on the saddle and pedals. No weight should be on the handlebar. The handlebar need not be touched, except to guide the wheel; and with a good saddle on a good wheel, one can, with a little practice, ride miles and miles without touching the handlebar, making all necessary turns by the motion of the body and feet.

The injuries produced by judicious cycling are but slight. Many good men and women have too hastily condemned the use of the bicycle, claiming that it is a vehicle which carries young girls to prostitution, but my experience teaches me that such theory is not correct. In cycling practiced on the public highways, and at the proper hours, girls may be as safe as in the parlor with closed doors. It is true, some abuse the liberty afforded through cycling; but probably they are already subject to the will of Satan, and the use of the wheel only reveals the fact. Some claim that the irritation of the genitals produced by cycling leads to immoral inclinations, but I am convinced that their conclusions have been drawn more from imagination than from actual knowledge; however, I do not deny that such a result is possible where girls are permitted to ride saddles with high and hard pommels. But when a well-shaped saddle is used, and the rider sits erect, no such effect will occur.

That accidents happen, certain affections are increased, and some diseases are produced, by careless and fast riding and by riding at improper hours, I am free to admit. But by selecting a clear track, and riding with moderate speed, in daylight, all objectionable features are obviated, and cycling becomes less harmful than riding in the carriage, on cars, or on horseback. I admit that a large percentage of the various saddles breed disease and misery, and should not be used. The hard pommel bruises the soft parts in the pubic arch, and may bring on a train of diseases of the genito-urinary organs of both sexes; and the hard center at the back of the saddle is worse, for it hurts the coccyx when the rider sits erect, causing him to pitch forward, throwing his weight on the handlebar, forming what is called "the bicycle hump." Men and boys prefer to hump forward at the expense of the urethra and other anterior structures, rather than suffer the excruciating pain produced by a bruised coccyx, but women must sit erect, notwithstanding their coccygodynia—an affection which no one can fully comprehend unless he has had it.

In order to make my explanation plain, I desire to allude to the anatomic structure of the little triangular extremity of the spinal column, known as the coccyx. In early life this bone is composed of four segments: It is one and a half inches in length, and its proximal piece, which articulates with the sacrum, is one and a half inches wide; but the three last segments are only about one-half inch in width. Thus it is easy to comprehend how this little bone, shaped like a cuckoo's beak, can dip down to the bottom of a crevice which is only a fraction of an inch in depth; especially when the wheel is bumping over stones and railroad tracks. Ossification of the coccyx takes place as follows: In the first segment, at birth; in the second, at from 5 to 10 years; in the third, from 10 to 15 years; in the fourth, from 15 to 20 years. As age advances, these various pieces unite and form one bone. Later on, in females, the coccyx unites with the sacrum, forming one bone out of what was in youth five pieces. Before ossification of the coccyx takes place, it is cartilaginous and flexible: the sphincter ani is attached to the last segment and draws it forward, while there is nothing to hold it straight, except the delicate extensor coccygis, which is often absent. Consequently, long-continued pressure while the coccyx is soft, will force it against the rectum, thereby lessening the diameter of the pelvis permanently, a point well worth the consideration of obstetricians.

How a slight bruise of the coccyx can produce the severe pain that cyclists suffer is not a mystery when we consider the little ganglion known as the "plexus vasculosum coccygeus," so well supplied with capillary vessels and nerve filaments. It is true that our physiologists have not found a function for this ductless mass called "a gland," but every country wheelboy who has received a bump on his cuckoo bill is enlightened on the subject, for it resembles a blow on the solar plexus—once felt, never forgotten!

Medical men have not given much attention to the construction of bicycle saddles, but have left the matter to mechanics who know but little of anatomy and physiology. A leading wheelman, who is considered authority on anything concerning a bicycle, recently displayed his lack of anatomic knowledge to me by saying: "When I slip forward, in order to keep from bruising my 'sternum bone' on the back of the saddle, my legs go to sleep from lack of circulation of blood." He meant that in order to save his coccyx, he slips forward till both ischia drop over in front of the saddle, allowing the edges to press into the sacro-sciatic notches, interfering with the sciatic nerves. It requires anatomic knowledge to design a perfect saddle, and mechanic art to execute the work as designed.

Of the large variety of saddles heretofore designed, none I have seen are perfect. Many of them have a hard pommel, and bruise the soft parts in front, while all interfere with the coccyx. Several designs of saddles have been advertised in our leading medical journals as perfect; but close observation reveals the fact that the groove in the center is not deep enough, for a groove only the fraction of an inch deep, the bot-

tom of which is hard, can not furnish perfect protection to a coccyx one and a half inches long. The cut which we see in medical journals, showing the ischia resting on the saddle, while the tip of the coccyx is raised clear above the top of the pubic bones, is incorrect and misleading, for when the spine is erect, the tip of the coccyx comes nearly to a level with the pubic arch. The tuberosities of the ischia and the gluteal muscles should rest firmly on the saddle; but the soft parts in the pubic arch, the sacrosciatic ligaments, and the coccyx, must be free from pressure. The saddle should be too soft to bruise, and too firm to give. The best padding is wool felt. Hair is not good, because it soon becomes displaced, packs down and gets hard. The pneumatic pad is not as good as hair, because it is too hard when well inflated, and, when only partly filled, pressure at one point displaces all the air at that point, allowing the part making the most pressure to come in contact with the hard structure of the saddle. It is also liable to burst, or get punctured.

THE FAUCIAL TONSIL.

ITS SPHERE AS AN AGENT OF SYSTEMIC INFECTION.

Presented to the Section on Laryngology and Otology, at the Forty-ninth Annual Meeting of the American Medical Association, held at Denver, Colo., June 7-10, 1898.

BY GILLIFORD B. SWEENY, M.D.
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The faucial tonsil must be regarded as occupying a very humble position in the human body, either from a histologic or a physiologic standpoint. In fact, the only function of any importance that can be attributed to it is that of leucocytogenesis. Of the entire glandular organism concerned in this work, the tonsil probably occupies the least important part. Its relation to phonation or sexual nutrition need be mentioned only to be dismissed, as every intelligent observer will testify that its absence in no way interferes with the former nor does its presence enhance the latter. As an agent for the secretion of fluid intended to facilitate agglutination, it is observed that it is no more active than the mucous membrane which surrounds it and replaces it when removed. The tonsil may be said to be most nearly normal when practically absent from the faucial cavity. It is only when it becomes the seat of morbid phenomena that it requires our serious attention.

It is not the purpose of this paper to dwell at length upon the individual diseases occurring in the tonsil, but rather to refer to them incidentally, especially when considering systemic manifestation having their origin in a morbid state of the tonsil and which in their ultimate results are far-reaching and often most disastrous. We submit for your consideration the following proposition: That the tonsil, while in a state of inflammation, is a frequent and common source of morbid processes which, ultimately, affect the entire human economy. Fortunately the scientific advances of the past few years yield considerable information which goes far toward aiding in establishing the truth of this proposition. We are no longer in doubt as to how the system is primarily attacked in diphtheria. Systemic infection, systemic symptoms must and do invariably follow local morbid processes, which often obtain their hold upon the body through the vulnerability of the organ first attacked. The same may be said of scarlatina, follicular tonsillitis, and, in our judgment, the same occurs in rheumatic fever, in many forms of tuberculosis, and in typhoid fever. That the faucial cavity is a most readily accessible point of attack in infectious diseases is easily understood when we consider the gross anatomic proportions of this region. From its position it may be compared to the smaller and constricted portion of a funnel situated at an abrupt angle. All the agents of respiration and deglutition must come in immediate contact with it in their passage back and forth. However mild the inflammatory process, whether acute or chronic, the tonsil becomes a hotbed for infection, and readily propagates and distributes the morbid products to adjacent and remote organs. Its anatomic construction so closely binds it to the vascular and lymphatic systems, that we are apt to overlook the local and initial manifestation and regard the secondary systematic invasion as the primary morbid process. The immediate result of repeated inflammation of the tonsil, terminating as it does in early life in hyperplasia, or in the mature subject, in true hypertrophy, is familiar to us all. Interfering with nasal respiration it produces the "mouth breather," with its train of deleterious results. Improperly filtered, moistened and warm air is hastily conveyed to the lungs, oxygenation is seriously interfered with, which promptly displays its ill effects in the dull, listless eye, impaired mentality, the pallid complexion, the contracted chest, and the anemic and often wasted muscular organism. Hypostatic congestion in the nasal tract is followed by interference with the normal functions of the organs of sight, smell and hearing, and encourages the hypertrophic process to extend indefinitely in all directions. None can deny the statement that the tonsil offers special facilities for the propagation of the diphtheritic bacillus; failing to admit this, how can we account for the fact that the vast majority of cases originate here? We can not generalize and say that it is because of the susceptibility of mucous tissues, for how really few cases originate in the nostril, the eye, or other equally accessible points.

I am fully convinced that not only is the tonsil a vulnerable point for diphtheria, but that when in a morbid state it becomes often a culture-medium for the propagation of germs which otherwise would perish before gaining access to the body of their host. The same is true to even a greater degree in those two other highly contagious and infectious diseases—scarlatina and follicular tonsillitis. While diphtheria may primarily attack some other organ than the tonsil, scarlatina certainly very seldom, and infectious follicular tonsillitis never, selects any other organ as a point of initial invasion. We are now able, I believe, to establish almost beyond doubt the infectious nature of rheumatism. One can not fail to observe the analogy in the systemic symptoms of follicular tonsillitis and acute rheumatism. While we have not yet been able to isolate a germ strictly characteristic of rheumatism, yet in this disease we find in the blood streptococci and staphylococci, which characterize follicular tonsillitis and are found in the tonsil when affected in that disease.

The metabolic theory as to the causation of rheumatism is certainly barren of the essential facts necessary to establish even its plausibility. To assume that defective assimilation under widely varying circumstances may produce a specific chemic agent—

lactic acid—and that this in its turn becomes the cause of rheumatism, is simply building a theory upon premises unsupported by facts or phenomena. The nervous theory, as to its origin, has been in a manner evolved from the former, and is equally devoid of underlying facts.

Medical science is not peculiar in that she recognizes no facts that are not supported by intelligible phenomena; and these phenomena going to prove the infectious nature of rheumatism are not isolated nor conflicting.

Since rheumatism has invaded the system through the blood, as shown in the case of a mother infecting the child *in utero*, since the systemic manifestations resemble those so often recognized in infectious diseases as in gonorrhea, septicemia and pyemia, it is certainly natural that we should search along similar lines for other sources of its development. Jaccoud, the eminent Frenchman, not only regards the tonsil as being the usual channel by which rheumatism attacks the body but believes that under favorable systemic circumstances any abraded surface may prove an open gateway for infection. Clinical study of the features of acute rheumatism strongly suggests: defective elimination, chiefly renal and cutaneous, and a specific bacterium, which, having gained access to the body, is fostered and nourished by the products of retarded elimination while it wages war upon the normal leucocyte. This hypothesis will be found to be compatible with all the clinical phenomena of the disease and in conformity with other similar diseases whose etiology has been established.

Turning to the consideration of tuberculosis, while we find hardly a tissue of the body which enjoys immunity from its devastating ravages, there is certainly no class of tissue that suffers more often than the glandular, whether we consider that attenuated form of tuberculosis which displays itself in the strumous diathesis and which we find wandering about at pleasure, to the remote portions of the body, devastating all classes of tissue, from the hair follicle to the powerful bony framework of the body, or whether we turn to those more directly fatal forms of tuberculosis attacking the lungs and alimentary tract, we find that the glandular system plays an important part in admitting the tubercular bacillus into the body and in furnishing soil well adapted for its development and propagation. No observant physician can fail to observe the promptness with which the parotid, submaxillary and cervical glands become infected in all inflammatory conditions of the tonsil. It can not be again said that this same infectious process may easily and naturally extend to the bronchial and mesenteric glands and become the agent of infection of the adjacent organs. Different eminent observers have found that in a given number of tuberculous subjects but a small percentage of cases exhibited the tubercular bacillus in the tonsil, and therefore conclude that it is rarely the organ first attacked. We well know that tubercular infection takes place readily at any point where there is a solution of continuity. To conclude that the tonsil must be a very frequent agent to be an active one in the causation of tuberculosis is certainly not a fair deduction, especially in the absence of data showing just where and how infection did take place. Conclusive proof in that direction, we believe, must contemplate the furnishing of evidence tending to show that in persons affected with tonsillar disease but a small percentage developed tuberculosis. When such investigation is instituted it will be found that a very considerable percentage of cases of tuberculosis invade the system through the open gateway to the lymphatic system—the tonsil.

Lack of time prevents our going into elaborate detail in the consideration of the means of infection in typhoid and malarial fevers. That the one is due to a specific bacillus, while the other is characterized by hematozoa and plasmodia, whose exact natures have not yet been fully determined, we are aware. Moreover, we also know that of all the influences tending to spread both these diseases no other agent plays as important a part as drinking water. What has been already said regarding infection through the tonsil in other diseases may, with equally good reason, be said of both these fevers. We would not urge that every person having unhealthy tonsils must necessarily be infected in this manner because he has partaken of contaminated water. Intestinal infection can not be regarded as being very common, otherwise in a city with such water-supply as we have in Pittsburg—my native city—we would look for one universal and uninterrupted epidemic of typhoid fever. We would only claim that the tonsil, being an open gateway for reception of all kinds of disease germs, is as plausible a point for infection as Peyer's patches or Brunner's glands. While it is beyond the scope of this paper to consider the treatment of tonsillar affections, and while medicinal agents usually yield very satisfactory results, we can not refrain from criticising the disposition to indulge in the surgical coquetries in cases of hypertrophy of the tonsils by the use of injections, electrolysis or chemic caustics. Radical extirpation by means of the tonsillotome is here the method *par excellence* for disposing of the morbid condition with the least possible amount of pain and with every assurance of the most satisfactory results.

DISCUSSION.

Dr. RICHARDS—Dr. Sweeney speaks of the desirability of removing the gland in order to prevent systemic infection. I do not see how it is possible in most cases to remove all of the gland. If any crypts are left there is always the possibility of systemic infection again occurring. At the Philadelphia meeting last year the point was made that the adhesion to the anterior pillar should always be separated. Since then I have followed this method with considerable satisfaction. In spite of this I have been mortified that in a few cases there have been recurrent attacks of tonsillitis. So that now I am inclined to hedge when asked if patients will ever have an attack of tonsillitis again. I always remove all the tonsil I can, but do not promise that when any crypts remain an attack of tonsillitis will never occur. It is not probable, but it may take place.

Dr. COULTER—My position in reference to the method of removal of the tonsil is quite well known. My paper, I apprehend, was the cause of the discussion which took place on this subject at the Philadelphia meeting. I do not believe the operation of tonsillectomy can be done by any possible method of operating other than that of a bloodless dissection by means of the cautery. You can by this method remove every follicle of the gland, and you can then promise the patient that there will not be a return of tonsillitis. Any operation which merely amputates the gland, leaves still more open this gateway to the system.

Dr. STUCKY questions advisability of attempting total extirpation of the tonsil. If one-half or two-thirds of the gland is removed, the remaining portion becomes so atrophied as to cause no future trouble.

Dr. BARNHILL, Indianapolis—I think in the operative treatment of tonsils that we should, as elsewhere, use our judgment and follow no one plan. In cases of children, the gland having no adhesions, projects sufficiently to be caught deeply with the McKenzie tonsillotome, and the desired result can thus be quickly and satisfactorily attained. But in many cases of diseased tonsil in the adult the tonsil is small, hard, adherent and does not project sufficiently to be caught deeply enough to cure

the disease for which the operation is performed. And in such cases the tonsillotome is inefficient, and it seems to me that the operation suggested by Dr. Coulter would here be a good one. I have never believed it necessary to remove more of a tonsil than that which will include the bottoms of all the crypts. However, I do not believe the body will suffer any for complete removal, for the tonsil is a part of the general lymphatic system, and the several hundred other lymphatic glands of the body can readily carry on the work done by the tonsils. I think Dr. Coulter should carefully describe and widely distribute the method of his operation, for I am sure the profession does not understand its minutiæ.

EPISTAXIS.

A SIMPLE AND EFFICIENT MEANS FOR ITS CONTROL.

BY BOYD CORNICK, M.D.
KNICKERBOCKER, TEXAS.

Recurrent or prolonged nosebleeding occurs sufficiently often in general practice to occasionally prove a nightmare to those practitioners who must rely on the means of checking it which are recommended by most authorities.

Having witnessed, twenty-two years ago, the ineffectual efforts of a specialist to check the hemorrhage in a case of unilateral epistaxis, I naturally felt no little concern when, a few years later, I was called on to arrest a bleeding from the nose of some twenty hours' duration. The means finally resorted to (with success) was a strong astringent injection, by means of a postnasal syringe, the tip of which was inserted through the mouth into the upper pharynx, behind the velum palati, the fluid flooding the floor of both nasal passages, and flowing out of both nostrils anteriorly. But there is a better and simpler method than this, if I may judge from its prompt success in some half dozen severe cases encountered since then.

So late and so good an authority as Struempell's "Text-book of Medicine" (revised edition) recommends plugging the nares with absorbent cotton. In all the cases in which I have known this measure to be adopted the result was a failure. Perhaps it was not done *secundem artem*. And perhaps, with so unsatisfactory material, this method requires more skill than most practitioners—and some specialists—possess.

My treatises on general surgery, on the other hand, lay no little stress on internal remedies, and fall back on the plugging of the posterior nares with Bellocq's canula as a last resort. Meantime, if they refer to an attempt to plug the anterior nares, it is with the recommendation that a quill, or a section of a gum catheter, be enclosed in the plug, and that a solution of perchlorid of iron be used to first saturate the plug. Of these recommendations the first is needless bother, and the second produces needless irritation.

There may be constitutional conditions predisposing to nosebleed, which call for internal medication. Plethora or cachexia, coexisting with epistaxis, calls each for its own appropriate treatment. Nor is it my purpose to deal in this paper with those cases of intermittent nosebleed, occurring in adolescence, without debilitating the patient, nor with that class of patients in later life where, because of contracted kidney and arterial sclerosis, an occasional profuse epistaxis acts, as a safety-valve in the steam engine, by preventing a degree of intra-arterial pressure which threatens apoplexy.

The class of cases which I have encountered, though generally presenting evidence of some constitutional disturbance of the normal condition of the blood, or of the normal blood-pressure, has likewise given evidence of the existence of a localized solution of continuity in the nasal mucous membrane itself. In all such cases, were the lesion situated externally, so as to be easily visible and readily gotten at, what authority would lay stress on internal medication to constringe the arterioles, as an aid to checking the hemorrhage? What surgeon would propose astringent or styptic applications to the bleeding site?

It is because the site of the lesion, in most cases of even persistent epistaxis, while not easily visible, is nevertheless as easily subject to compression as though on the external surface of the body that, in all the cases I have encountered within the last fifteen years or more, compression of the bleeding site has been as readily accomplished, and has been as promptly successful, as though it had been located on the external surface.

All that I have found necessary has been to fashion with a pair of scissors a dry plug of prepared sponge, in size and length comparable with the little finger of a 12-year-old-boy. This should be carefully soaked in boiled water, to free it of grit, squeezed dry to free it of unnecessary fluid, and inserted its full length, gently, along the floor of the bleeding nostril. No styptic is necessary; it would be needlessly irritant. The expansive pressure of the soft sponge against the bleeding site, increased by the coagulation of a few drops of blood in its interstices, will check the bleeding at once. Remove it in twelve hours. Under no circumstance let it remain longer than twenty-four. Melted vaselin containing .5 per cent. of carbolic acid applied with a medicine-dropper in liberal quantities is the only local treatment called for afterward.

PELVIC MASSAGE.

BY LLEWELLYN P. BARBOUR, M.D.
BOULDER, COLO.

The recent papers in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION discussing massage have been of much interest and of much worth to the general practitioner. It is to be regretted that this valuable remedial measure is not more widely appreciated by all who deal with pathologic conditions of the female pelvis. There is nothing in its technic that may not be done by the general practitioner with a good knowledge of the anatomy and physiology of the pelvis, and with ordinary dexterity. My attention was forcibly called to the subject six years ago by Dr. Dudley, of the New York Post-Graduate School, and the results I have since obtained have been a source of much satisfaction to me. I will report two recent cases, not because they surpass the success of the previous ones, but because they are recent, and because they serve as an example of what can be accomplished.

Case 1.—Mrs. Y. This patient first applied to me for treatment in July, 1897. Three years previously she had miscarried at three months. I could not learn the cause of the abortion. She was quite sick afterward, evidently from septic infection. She has suffered from menstrual pains since—not before—and somewhat from "bearing-down" sensations. She is troubled with constipation; has not been pregnant since the abortion, but is anxious to become so.

An examination revealed a retroverted, prolapsed and subinvoluted uterus, glued firmly in its position by inflammatory adhesions. Before coming to me this woman had consulted two physicians—one an eminent gynecologist—and both ha

told her that nothing could be done for her except by surgical means. To this she firmly refused to submit.

Remembering unexpected successes in the past, I cautiously held out some hope from massage. I was cautious, because I had never before attacked a case with such a mass of adhesions and with the organ so seriously misplaced. I warned her, too, that it would take some time to accomplish noticeable results. The results have, however, been all that one could ask—absorption of the plastic material, loosening of the adhesions, restoration of the uterus to its normal size and position, and finally, what to my patient has been the source of greatest satisfaction, a pregnancy six months along.

It is doubtful whether a mere operation, such as had been suggested to this woman, would have given her much relief. At least my observation does not make me at all enthusiastic for such work. Mechanic separation and suspension of the uterus would most certainly not have brought about the complete restoration of size, position and function that was thus accomplished, as it were, physiologically. I should say that in this, and in all my cases of this kind, I used an occasional douche of hot water, tamponage and faradism. It is not wise to neglect remedial resources of value for any one method of treatment, as long as they are not incompatible.

Case 2.—Mrs. E. K. The patient consulted me because of her sterility. She was 28 years of age; had been married six years, and had never been pregnant. Menstruation was always scant, but with very little pain; it began at 18 years of age. Her general health has always been good.

An examination revealed a very small uterus—nothing else abnormal. Two years before this the patient had been told that the sterility was due to the small mouth of the uterus, and had submitted to an operation for relief. This operation had been successful in enlarging the os, if it had ever been necessary, but not in relieving the sterility. My diagnosis was: sterility due to an "infantile uterus."

Massage seemed in this case the one thing that held out most hope of stimulating the uterus to growth and activity. After the third month of treatment there was a decided increase in menstrual flow, but no appreciable increase of size of organ. After ten months she became pregnant and is now a happy mother. This woman, besides submitting to the operation for enlarging the os, had taken various compounds containing saw palmetto, viburnum, etc., but without any results. I used massage alone, with results given above.

Dr. Westerschulte, in the JOURNAL of Jan. 28, 1899, says that "cases hitherto considered incurable or only accessible to operations, have been cured in comparatively short time." I do not know how long a time he means by "comparatively short time," but I have found the length of time a serious objection. Patients become tired and impatient; I do not mean they tire of one séance, but of the number necessary. The successful results, however, justify even a comparatively long period of treatment, and it may be I shall learn that a more complete knowledge will make the time I have hitherto used unnecessary.

Before closing, I would repeat, for emphasis, from Dr. Westerschulte's paper: "For success with pelvic massage an accurate diagnosis is necessary, and whatever manipulation is applied is to be done lightly and without using force."

Differentiating Test Between the Eberth and Colli Bacilli.—Gorbunoff recommends the following simple method: Two test tubes are filled with liver bouillon tinted violet with an infusion of litmus. One is inoculated with the bacillus coli and the other with the bacillus typhi. Both are kept at a temperature of 37 degrees C. for twenty-four hours, when the first tube will be found tinted reddish, while the tube with the bacillus typhi is colorless. Grains of blue will be seen on the bottom, which color the contents unevenly when shaken and soon settle to the bottom again.—*Gaz. degli Osp. e delle Clin.*, February 9.

SYPHILIS OF THE NERVOUS SYSTEM AS THE GENERAL PRACTITIONER SEES IT.

Presented to the Section on Cutaneous Medicine and Surgery, at the Forty-ninth Annual Meeting of the American Medical Association, held at Denver, Colo., June 7-10, 1898.

BY C. TRAVIS DRENNEN, M.D.

President of Hot Springs Medical Society; Member of Arkansas Medical Society; Ex-Vice-President of the Tri-State Medical Association; Member of Rush Medical College Alumni Association; Mississippi Valley Association, and the American Medical Association.

HOT SPRINGS, ARK.

Syphilis of the nervous system is undoubtedly a disease of common occurrence, but, as the general practitioner sees it, in the majority of instances it might be considered a rare as well as most formidable one—rare, for the reason that he does not recognize it; and formidable, because in its very nature it is such, and made more so through failure of proper recognition, permitting the stage of exudation to enter far into that of degeneration, long before the true character of the malady is brought to light.

If we might be permitted to judge from our own observation, we would be led to say that in the vast majority of cases of syphilis of the nervous system coming under the observation of the general practitioner, it is not recognized until too late for the neurologist or syphilographer to do more than make a correct diagnosis or write a death certificate. This being our conception of the condition, what is to be done? Our answer is: nothing, save to more thoroughly educate and acquaint the general practitioner, if possible, with the pathologic changes which syphilis produces, and at the same time give him a clearer insight as to the general as well as the special symptomatology of the disease.

It is well for him to remember, first, that in man there is not a single organ or constituent part that is exempt from the ravages of syphilis, and that syphilis and hysteria—whatever that may be—go hand-in-hand both as simulator and imitator, and as such, may be mistaken for almost any disease which humanity may have fallen heir to. He should know that absence of skin lesions and chancre or evidence of its former existence counts for naught in women presenting history of frequent abortions with subsequent symptoms of an invaded system, for the reason that syphilis by conception is a common accident. Have him understand that absence of knee-jerks in young persons without other symptoms being present in the nervous system is strongly suggestive and is well worth his timely and careful consideration, no matter how negative the history of syphilis may be. He should become an expert in traversing the entire lymphatic system, recognizing blindfolded as it were inguinal epitrochlear and postcervical adenitis without hesitancy.

It would do him no harm if examination of the hemoglobin and blood cells were made, in order to ascertain the degree of anemia, which is almost invariably found in syphilitic subjects who have not been subjected to antisyphilitic treatment, regardless of the age of the disease. Now the headaches, leg aches nocturnal in character with bony enlargements, diseased nails with either past history or present, falling off of the hair in spots, with copper-colored discolorations about the skin and iritis, should not be forgotten.

He should bring to mind and keep ever in view the fact that syphilis of the nervous system may be found

at almost any age of the disease, and that Rev. Mr. —— may be a most virtuous and devout individual of today, but possibly a common renegade and libertine of earlier years.

His failure to recognize and properly diagnose is in many instances not worse than his treatment, for he has been taught that mercury and the iodids cure syphilis, but he has forgotten—if he ever knew—that the long-continued use of either mercury or of the iodids without interruption, given in large and increasing doses, is capable of adding insult to injury. He does not call to mind the fact that in certain individuals who have taken largely of the iodids we have, as a result of such administration, formations of ulcers in various places throughout the skin, frequently intractable to all forms of treatment, and that any agent or agents capable of producing such pathologic changes might be schooled to act upon the nerve structures in a similar manner. It would be just as well for him to ask the question: Since mercury sometimes acts untowardly, producing necrosis of the bony structures and general disintegration of the soft parts, why might it not enter tissues known to be better protected anatomically than the skin and do like damage to tissues known to be far more vulnerable if abused?

Let him know further that the only way we may ever hope to lead the syphilitics to health in safety with our present knowledge of the disease lies in the old principle of nutrition and elimination, and that this can only be brought about through the higher knowledge of dietetic and hygienic conditions, coupled with a more earnest study of physiologic laws, which do and must ever govern mankind in his afflictions.

The mantle of iniquity woven upon the hapless loom of one's own shortcomings should not be thrown upon and be forced to be worn by the helpless, unprotected and innocent shoulders of another. Hence, it might be well for those who instruct to ever bear in mind that a chain can not be stronger than its weakest link, and that the maker is measurably responsible for the job.

LIPOMA OF THE LABIUM MAJUS.

BY HENRY MARSHALL FENNO, M.D.

Member of the American Medical Association, American Public Health Association, New York State Medical Association, Monroe County Medical Society, etc.

ROCHESTER, N. Y.

Kelly, in his excellent work on "Operative Gynecology," says that lipoma or fatty tumor is one of the rarest gynecologic affections; no writer has yet recorded more than a single instance in his own practice.

Dr. Boldt, in Keating and Coe's "Clinical Gynecology," speaks of a case where he removed a lipoma weighing ten ounces which was attached to the left labium majus by a pedicle two inches long; he says that the tumor was not altogether of fat tissue, the lobules of the latter being enveloped with a fibrous connective tissue; hence the designation "fibrolipoma." Kelly says of a case which he saw in the Episcopal Hospital, Philadelphia, that an ovoid tumor, three inches long, hung from the middle of the right labium majus by a slender pedicle two inches in length.

My own case was a mulatto girl, Sylvia A. C., 28 years of age, married, having one child, a girl, 9 years old. About four years ago she was confined a second time, giving birth to a still-born child. Soon after the birth of this child she noticed a swelling on the left labium majus which slowly but steadily increased in size, until, becoming alarmed, she came to my office to consult me in regard to the matter. Upon making an examination I found the growth to be a lipoma attached to the left labium majus by a pedicle, one and a half inches long, and three-quarters of an inch thick. After a few days of preparation treatment, I removed the tumor at the patient's residence, Dec. 7, 1898, assisted by Mr. O. J. Bryan, who attended to the administration of the anesthetic (ether). After thoroughly cleansing the tumor and adjacent parts, I passed a needle armed with a double ligature of braided silk through the base of the pedicle, tying it each way; the upper ligature in this way included a small artery which passed through the upper central portion of the pedicle into the growth; the tumor was then excised; there was no hemorrhage, the ligature controlling the bleeding completely.

The tumor was fibro-fatty and measured three inches in length, by one and a half inches in breadth and one inch in thickness, and weighed two ounces; the patient remained in bed twenty-four hours, and on December 12, came to my office, where I removed the ligatures. In one week more, December 19, everything was nicely healed up and the patient was able to be about her work as usual, doing a heavy washing on that day.

Society Proceedings.

San Francisco County Medical Society.

March Meeting.

Dr. C. G. LEVISON presented a report of a case of

RESECTION OF RECTUM AND BLADDER; COLOSTOMY; CURE OF ARTIFICIAL ANUS; RECOVERY.

The patient, a man of 65 years, married, and the father of several healthy children, gave a history of a fall about two and one half years ago; he struck on his back and sustained also a Colles' fracture of the right arm. He fell with the legs extended and the impact was upon the coccyx; the bladder was full at the time. After the fall he suffered from pain in the back for some three months, and complained that the bowels did not move so freely as had formerly been the case. Constipation was progressively worse; blood and mucus finally appeared in the stools. He consulted Dr. Levison for relief from the discomfort of the difficult evacuations; had lost no weight. Examination of the rectum disclosed a fungus growth quite occluding the lumen of the rectum, and extending two inches above the sphincter. The finger could not be passed through this growth, which was hard, painful and bled easily on handling. The diagnosis was cancer of the rectum.

On July 28, 1898, colostomy was performed in the left iliac region; the gut was sewed to the peritoneum over a spur formed by a glass rod pushed through the mesocolon. The gut was later opened by means of the actual cautery. The patient did well, temperature not rising above 100. Later the gut and rectum were disinfected by means of hydrogen peroxid through the fecal fistula; the pelvis was elevated by a sand pad under the abdomen. The parasacral incision was made and the sacrum removed with the chain saw. Peritoneum opened, the growth was found to involve the rectum for about two inches. About five inches of the rectum and sphincter, the prostate, and a portion of the bladder wall were removed. The only complication during the recovery was the failure of the stitches in the bladder wall to hold. This had been expected, owing to the considerable amount of bladder wall which had been removed. It was later decided to close the artificial anus, which was quite perfect. The gut was thoroughly disinfected both above and below the opening, and the opening was then closed with clamps. Dissecting the gut from the peritoneal wall was found to be a matter of much difficulty, but was at last successfully performed. A portion of the gut was then resected

and the ends brought together by means of a Murphy button. Recovery was uninterrupted. The growth was found to be an adenocarcinoma.

Dr. Levison gave a résumé of the whole question of rectal cancer and the various operations for the treatment of that condition, together with statistic abstracts from all recently published literature. Excision of the rectum seems to be accepted by all authorities, with one or two exceptions, as a justifiable procedure. The advisability of a preliminary colostomy is, however, a much discussed question. The mortality of the operation of resection is a matter of some doubt, owing to the fact that there are undoubtedly many failures which have not been, nor will they ever be, published. Mr. Ball, "Diseases of the Rectum and Anus," cites 175 cases with a mortality of 16 per cent.; a writer in the *Weiner Med. Woch.*, 1897, reported 88 cases with a mortality of but 10 per cent.; Quenu and Kocher are of the opinion that the mortality is about 20 per cent. Finet collects 375 cases reported, with 76 deaths, of which 42 were from infection, 16 from collapse. Sepsis is considered by Quenu and Hartmann to be the cause of not less than 80 per cent. of the fatalities. Many cases which were apparently cured were cited, and cases in which there had been no recurrence for three or more years were comparatively common. Esmarch, having kept his patients under observation, had observed no recurrence at the end of 3, 4, 8 and 11 years. Finet's thesis records cases in which no recurrence had been noted at the end of 16½, 16, 14, 10, 8, 6, 5, and 4 years. Mr. Ball in his work, records nine patients alive six years after a radical operation. Dr. Levison found the average term of life following resection of the rectum to be about two years; after colostomy alone, in cases of inoperable cancer, about eighteen months. The question as to whether the patient will be more comfortable without his rectum and sphincter, or with these useless appendages and with an artificial anus, is an exceedingly difficult one for the surgeon to decide.

The Doctor's opinion was in accord with what seemed to be the generally growing opinion at present, that the more radical operation is much to be preferred. The preliminary colostomy is much to be preferred to the simple operation of resection, in most cases. The comfort of the patient after résection of the rectum will depend largely upon the amount of tissue involved and necessarily removed. If a classic resection is performed and the sphincter retained, then the end of the gut may be brought down and the control of the evacuations will be perfect. If this is not the case, and the sphincter has been removed, then the amount of control will depend upon the degree of contraction resulting; this may indeed be too great and demand subsequent dilatation. Where the sphincter must be sacrificed, it has been suggested by Gersung as an advisable proceeding, to treat the end of the gut by torsion, and then fix the twisted portion to the skin by sutures. Several cases are cited in which this method has been successfully employed. Another method has been highly recommended by Witzel; in this operation, the end of the gut is brought through some of the separated fibers of the gluteus maximus. The Doctor then discussed the various methods of performing the actual operation of excision, first prefacing his remarks by defining the terms generally employed, and the anatomic relations of rectum, peritoneum, and gut. In making the iliac colostomy the method as well as the landmarks differ with different surgeons, though the greater weight seems to be with an incision of two to two and a half inches long, one and one half inches above and parallel with Poupart's ligament. Just here arises the greatest difficulty with the iliac operation —prolapsus; it is on this account that many operators are now making the incision high up on the abdominal wall, where the pressure is less and the tendency to protrusion consequently smaller. Much difficulty may be experienced in finding the colon, after the abdominal incision has been made, though it usually presents at the wound. The gut may have greatly atrophied as a result of the malignant disease, and the consequent decrease in the longitudinal muscular fibers with a disappearance of the epiploces. If the colon can not be found, it may be necessary to fill the gut with water; in this manner indicating its whereabouts. The gut should be carefully drawn out and the serous surfaces sewed to the peritoneum, some resistant material being passed behind the loop of gut.

He then considered the methods of resection, stating that there were five routes presenting themselves from which the operator was to make his choice: 1, through the perineum; 2, through the sacral region, with resection of the sacrum; 3, a combination of the sacral or perineal methods; 4, through the vagina; and 5, abdominal section. The sacral route of operation was discussed at some length. It is indicated where the growth is high up on the middle or upper third of the rectum, and was made possible by the discovery that the sacrum might be with safety resected as high up as the third sacral foramen. Previously the method of Kocher had been employed, in which the long incision is made and the coccyx is removed. Much care should be employed in removing the portion of the sacrum, for if the cut is made too high, permanent paralysis of the bladder may result. The incision may be either along the left side of the sacrum, long and extending almost to the anus, with a transverse incision at about the point where the bone is to be divided, or a ∩-shaped incision may be made and the bone turned down after sawing. Either method gives ample room for operating. Hemorrhage may be quite profuse. The peritoneum should be incised and the rectum hooked up with the finger. If the dissection is carried on close to the sacrum, there is but little danger of interfering with the blood supply of the anus. If the sphincter is not involved, the gut may be brought down and sutured, or fastened to it by means of the Murphy button; if the sphincter is involved, as in the present case, it must be removed and the gut sewed to the skin under the sacrum. The other methods of operation were touched upon, and the patient was then demonstrated, as were slides of the prostate, clearly showing the cancerous involvement of that gland.

Dr. JULIUS ROSENSTIRN said that he could find only words of congratulation on the excellent result of the operation, though doubtless it was not so satisfactory as Dr. Levison himself could have wished. That, however, was the fault of surgery, not of the surgeon. In his opinion there was no doubt that the present position of the English surgeons in opposing colostomy is wrong, and that the preliminary colostomy is to be considered as a highly desirable proceeding. In regard to the probable average mortality, statistics were not to be depended upon as evidence pro or con, for the reason that so many cases were reported where the result has been good, but no one could tell how many operations had been performed where the result was not satisfactory. The opinion of one good surgeon who had plenty of material on which to base his opinion was certainly of more value than the published statistics from promiscuous reporters. Buckle reports 43 cases on which he has operated, with 33 per cent. well at the end of three years. Some of these cases had gone six to twelve years with no recurrence. He believed that Levi's method should be more generally adopted, as it gave a large incision with plenty of room and an opportunity for free drainage after the operation. Where it is possible to save a portion of the rectum and anus, it is well to invaginate the upper portion, pull it through and sew the serous surfaces together. In this way there is little chance for infection, the greatest cause of danger in the operation.

Dr. TAIT said that the operation, considering the involvement, was most remarkable. He recalled that at the meeting of the State medical society three years ago, this question of how to deal with cancer of the rectum had come up for discussion. At that time the general opinion seemed to be that the best method of dealing with these cases was by the artificial iliac anus. He was glad to see that three years had been enough to change the general opinion and direct it toward what was eminently the more surgical procedure. He recalled two cases in which he had operated for cancer of the rectum. The first was a woman of 32 years. The malignant growth involved the rectum for at least three inches and also the posterior vaginal wall. The gut was brought down and stitched to the skin. The growth was an epithelioma of limited area. Recovery was good, but the patient died four months later from a development of similar trouble in the liver. The second case was one of sigmoid cancer in a man 54 years of age. In this case what is known as Quenu's operation was tried. This is the combined abdominal and perineal operation. The result was good. Rectal surgery is changing very much, in Dr. Tait's opinion, and the sacral route is being abandoned save for cancers very low down. The two sources of danger, in his opinion, are sepsis and hemorrhage. To avoid sepsis, the ends of the gut should be first completely closed and the involved gut treated then as a cyst. The hemorrhage could be avoided or controlled by ligating the iliac arteries. An excellent operation, and one not thus far reported in the American medical press so far as he was aware, was Quenu's operation, already referred to by Dr. Levison. In this operation, which is performed through the abdomen, the intestine is cut between clamps with the cautery; the upper end is then inserted into the abdominal wall, making a permanent artificial anus. The free lower end is then carefully dissected out by means of a circular dissection, leaving the sphincter if possible. The hemorrhoidal vessels should be ligated. The drainage-tube should be surrounded by gauze. This operation makes the excision very much like the removal of a cyst. There is little danger of sepsis.

Dr. KUGELER presented a specimen and the report of a case of

TRAUMATIC RUPTURE OF THE LIVER.

The patient had been driving in Golden Gate Park on Sunday, March 12. The horse shied suddenly, throwing the man out of the buggy; in his fall he struck violently against a post, his right side coming in contact with the post. He was taken to the park receiving-hospital, unconscious, and there examined. There was no bruise nor indication of any injury. He soon recovered consciousness and was sent home. He complained somewhat of pain in the side and back. Later he became worse, and Dr. Kugeler found him suffering from evident collapse. He then showed all appearances of hemorrhage; he was pale and collapsed; vomited small amount of whisky and water with a very few small particles of blood clot; pulse 90, but weak; respirations rapid. He complained of severe pain in the right side and back. There was dulness in the right flank. Dr Evans was called in consultation, and he quite agreed in the diagnosis of ruptured liver, with internal profuse hemorrhage. The patient was removed to the Waldeck Hospital, Dr. Carpenter called in, and operation determined upon at once. An incision was made along the right rectus; when the peritoneum was opened, the blood gushed out in torrents. It could be seen pouring into the abdomen, but the point of hemorrhage could not be located. It seemed to be coming from above, but when the hand was introduced the posterior surface of the liver could be felt to be torn. The extent of the rupture could not be determined. What to do was not easily answered; had it been the spleen, it would have been removed, but "hepatectomy" is not yet a well-recognized proceeding. The liver was packed as well as possible, the intention being to make pressure against the diaphragm, and if possible control the hemorrhage in that way. He stood the operation comparatively well, salt solution, strychnin and other stimulants being liberally employed. After the operation he rallied and did well throughout the next day, until late in the aftenoon. In the morning he had a temperature of 103, but this dropped to 102.2 later in the morning. There was some oozing of blood on the dressings, but no indication of profuse hemorrhage, and he seemed to be doing very well until afternoon, when he developed severe pain in the back, for which morphin was given without relief. Later he became delirious, had to be strapped in the bed, and at 8 A.M. died. He lived in all between thirty-eight and thirty nine hours after an injury which had produced an enormous laceration of the liver. The postmortem examination had been made on the morning of the day of the society meeting, in the presence of the coroner, and the liver was shown to the society. The whole of the upper and posterior portions were torn into shreds, the wounds extending deeply into the liver substance. At one point was to be seen a gangrenous spot, which it had been suggested might have been the cause of the temperature.

Dr. CARPENTER said that the question arising in these cases, was: What could be done? On the operating-table there was no doubt as to the laceration of the liver, but the question was: What could be done? The extent of the injury could not be determined, and it was utterly impossible to go any farther with their investigations than they had gone. He had wondered if the laceration could have been handled any better from above, but thought not.

Dr. KENYON said that in his opinion and experience these cases were always fatal. There was no way known to him of checking the profuse hemorrhage. Pressure was the only thing, and that was sometimes, as in the present case, impossible.

Dr. ROSENSTIRN said that in the present case nothing could have been done that would have changed the outcome of the case. The operators might have gone through the pleural cavity and come down upon the upper portion of the liver, where the most extensive injury was, but it would have been of no avail as pressure could not have been made any better in this way. The statements of Dr. Kenyon were, in his opinion, not supported by the facts, for he had known of many cases in which hemorrhage of the liver could be and was controlled. He called attention to the method of stopping hemorrhage of the liver by the use of a stream of hot air. Steam had been suggested and used, but it was not comparable to hot air. He had employed it experimentally on animals, and it had been successful. In the present case it would have been impossible to reach the area of injury without entirely removing the liver.

Dr. TAIT said that the use of gelatin had been suggested to control these hemorrhages, and that on animals he had found it quite satisfactory.

Dr. KUGELER said that gelatin had been suggested at the time of operation, but the question which then arose and which prevented the use of the gelatin was: Where should they put the gelatin? The extent of the rupture could not be determined, and as it was found on postmortem examination, could not possibly have been determined without the complete removal of the liver. In the fluid found in the abdomen were small pieces of tissue which at the time were recognized as liver tissue and were kept for microscopic examination, in the case of the recovery of the patient. They had not been examined, as the postmortem examination was quite enough to prove the liver laceration. Another feature of interest, found on postmortem examination, was the presence of a supernumerary spleen. It was small in size, about the size of a walnut, and surrounded by fat. The structure was the same as spleen structure.

Chicago Medical Society.

Regular Meeting, March 15, 1899.

The president, Dr. Arthur D. Bevan, occupied the chair.

Dr. SANGER BROWN read a paper entitled

DEVIOUS MANIFESTATIONS OF EPILEPSY,

in which he said that there was perhaps no symptom complex which properly permitted of a more concise and definite description than the consecutive pathologic phenomena constituting a typic epileptic seizure, and consequently there were few subjects regarding which the students of medicine were likely to preserve a clearer and more perspicuous mental image. But while it is true that there is a very obtrusive similarity in the manifestations of the classic fit, as noticed in different individuals, it is no less certain that there is an almost infinite number of deviations from this which are sometimes scarcely less diagnostic than the fit itself, but which are nevertheless quite frequently unrecognized. The purpose of the paper was to call attention to some of these deviations, and in relation with them to enunciate a few general pathologic principles, which, if clearly comprehended, might in some cases contribute to an early diagnosis.

The essayist expressed his conviction that the main pathologic feature in epilepsy consists in a sudden disturbance of equilibrium between the several forces of the central nervous system. He regards all neurons directly connected with end-organs as peripheral; all others as central, though these latter are frequently further subdivided into projection, intermediate, etc., this equilibrium being soon completely restored and a permanent tendency to recurrence remaining. These general statements regarding the pathology of the malady correspond with the best descriptions of the classic fit, and also with the most characteristic deviations therefrom.

Few observers, who have given the subject much attention, will dissent from the view that by far the most potent etiologic factor consists in a predisposition inherent in the cerebral tissues to undergo those changes which give rise to epileptic phenomena. Some ingenious arguments have been advanced to the effect that the main causative element consists in a vice of metabolism, resulting in an excess of some noxious substance or substances accumulating in the tissues of the brain and thus exciting this abnormal activity. But even if this is admitted, then it is not unreasonable to assume that this metabolic vice owes its origin mainly to influences derived from the nervous system, so that in either case an inherent pathogenic tendency of the central nerve elements has a similar etiologic significance. The simple fact, however, that therapeutic measures projected on the basis of an autotoxic etiology have been notably barren of results, so far at least, rather discredits this theory. That individuals are frequently met with, however, who, on the one hand, have been repeatedly exposed to influences usually regarded as especially likely to act as exciting causes of epilepsy, without developing the disease, and on the other hand, innumerable instances are observed where the disease develops without any appreciable exciting cause whatever, powerfully magnifies the probability of an inherent predisposition.

Several instructive cases were narrated by the essayist, illustrating the above observations. Two of the cases reported showed the relationship of migraine and nightmare to epilepsy. But while it is reasonable to suppose that disorder of the central nervous system is the most essential pathologic factor in the two former conditions, as it is in epilepsy, the onset is much slower and of longer duration, and judging from the symptoms, the cerebral changes are of a very different nature. Hence it may be argued that primarily they are not necessarily very intimately connected with epilepsy, but rather that the neuropathic condition which gives rise to their symptoms more or less strongly predisposed the nervous tissues concerned to

take on that state of abnormal activity peculiar to the latter disease. If this were not the case it would seem that their association might be very much more frequent than it is.

Some of the mental states which the cases illustrate might be set down as insignificant, because it is not a matter of very uncommon experience, for instance, to have the feeling that the environment is a repetition; to feel as if an individual met for the first time had been intimately known for years; to have familiar surroundings seem strange and strange surroundings seem familiar, or even to have the scenes of childhood come rather vividly and unexpectedly before the mind. The suddenness, however, the strength, the brevity, the rapid and complete disappearance, and the recurrence of the manifestation, and the immediate subsequent phenomena, as sleep, or violent headache, afford the principal diagnostic criteria, and indeed, the author thinks this is practically all that can be said regarding the possibility of deciding as to whether various slight seizures are epileptic or hysteric, for there is probably a borderland, not very wide, to be sure, separating epilepsy from hysteria. That is to say, cases are to be met with in which for months or years minor manifestations can not be certainly classified. His personal experience has been, however, that in the majority of instances, where the symptoms seemed a long time doubtful, positive signs of epilepsy finally appeared.

Dr. CARL BECK followed with a paper on

THE VALUE OF RESECTION OF THE SYMPATHETIC GANGLIA OF THE NECK IN THE CURE OF EPILEPSY.

He said that in 1897 Jonnesco recommended total extirpation of the sympathetic ganglia of the neck on both sides, for epilepsy, Basedow's disease, hysteria, chorea, tumor of the brain, progressive paralysis, and many other similar diseases. In all three cases of genuine epilepsy reported at that time the cure was perfect, but these cases were observed for only a very short time. Navratil, of Budapest, also reports three cases of operations similar to Jonnesco's and Donath's, and describes the results. In all three cases the results were negative. At the surgical congress held in Moscow two years ago Jonnesco reported a number of cases thus treated, and also others, among them Chipault. These men are sanguine as to the results, while men like Péan have been very skeptic.

During the last few years Dr. Beck has had occasion to operate on several cases in the manner suggested by Jonnesco, namely, the resection of both sympathetic ganglia of the neck, and he briefly reported the experience gained from these operations, giving a short history of each case.

In reviewing his results he summed up by saying that the method suggested by Jonnesco, and so highly praised by him and his followers, is of hardly any value, and that the few changes for the better that have been observed are either accidental, or such as are observed in almost any interference. Nevertheless, the operation on these cases has aided us a great deal; in the first place, to show the influence of the removal of the sympathetic nerves and ganglia of the neck upon the eyes.

It has occurred to him that at the time of the operation of the third case, he had at the same hospital a case of large goiter in a young woman, the disease causing considerable trouble. The goiter had developed more on one side than on the other. In removing the large left lobe he had to go very deep, and probably lacerated one of the sympathetic nerves in some way, for immediately after the operation the eye on one side sank back, the eyelid drooped, the tears ran freely on that side, the side appeared red, the other pale, the side perspiring, the other not. At the present time these symptoms have subsided entirely and the eyes appear alike. He does not think that he removed the sympathetic in this case of goiter, but thinks that it was irritated in some way by pulling with the retractor, or by pressing the fibers, or in some other way. He can not otherwise explain this unilateral change. Taking this change and the chance observation of the second case of the influence of the removal of the sympathetic upon the eyes and the nervous system, he should say that the removal of the sympathetic might be of great value for the treatment of Basedow's disease, and that, at any rate, he would suggest it for such cases, for the reason that it is less difficult and less dangerous than any other surgical method suggested for the treatment of this disease; but as for the cure of epilepsy, he is satisfied of its being of doubtful value.

Methylene Blue in Gonorrheal Urethritis.—O. Horwitz has attained extremely favorable results with the administration of a capsule three times a day containing each: methylene blue .06 to .12 gm.,; oil of santal and copaiba āā .18 gm.; oil of cinnamon 1 gtt. for one capsule. Make xx.—*Jour. de Méd. de Paris*, February 19.

Denver and Arapahoe Medical Society.

Regular Meeting, March 14, 1899.

Dr. J. N. HALL reported three cases of

LEUCEMIA.

Case 1.—Splenomyolegenous leucemia in a male, German 47 years of age. His mother died of dropsy. Three years ago his abdomen began to increase in size; for several months he noticed exhaustion, breathlessness and debility upon attempting to work. When seen April 1, 1898, he was moderately anemic, and abdomen protuberant; spleen reached to within two inches of pubes; notches being distinctly palpable; temperature varied between 98 and 100; pulse 90 to 100; urine normal; blood 2,890,000 erythrocytes and 33,000 leucocytes, a ratio of 1 white to 8.7 red cells; many normoblasts were present. The myelocytes were 55 per cent. and were diagnostic of splenomyelogenous leucemia. The patient gradually failed and died in September. The spleen weighed six and one-fourth pounds; liver normal; right kidney filled with pus.

Case 2.—A female, 44 years old; was first seen Nov. 21, 1897. She had three children; for eighteen months complained of dyspnea, slight dry cough, progressive increase in size of abdomen, slight edema of feet, lost fifty pounds in weight; no digestive disturbance; moderately anemic; temperature 99.6; pulse 104; lungs and heart normal; liver normal; spleen reached to navel and within four inches of pubes; slight enlargement of glands in axilla and groins; ratio of white cells to red, 1 to 5; has taken Fowler's solution for a long time; patient still attending to her household work, and in comfortable condition.

Case 3.—A male, 8 years of age, was seen November, 1898; family history good; no specific history; had chicken-pox when a baby, diphtheria at three years and pneumonia at five years; in October, 1897, the glands in the neck and both groins became swollen; from January, 1898, confined to bed for eight weeks; slight cough all the time; lost twelve pounds in weight. Since the beginning of the glandular trouble, there has been constant daily rise of temperature, 101 and 102 degrees; pulse 120-144; complained of pain in knees, splenic region and right flank; six to eight stools daily, except when taking medicine. Two aspirations into the hepatic region have given negative results. The hepatic dulness extended from the fourth rib to two inches below the costal margin. In the back the dulness extended upward to the eighth rib. The splenic dulness was 344, the edge of spleen palpable. It is to be noted that the spleen is less enlarged in cases of leucemia having diarrhea; lungs negative; blood count: red cells 4,500,000, hemoglobin 60 per cent; color index .73; white cells 35,000. A little over one-half were of the lymphatic variety. The patient was placed upon ascending doses of Fowler's solution; at the end of six weeks has gained four pounds in weight, and improved much in color; blood showed an increase of a quarter of a million of red cells; hemoglobin 65 per cent, lecucocytes 15,800. In January his condition was still improving.

Dr. Hall then discussed the points of differential diagnosis between mixed lymphatic leucemia and ordinary leucemia, chlorosis, progressive pernicious anemia and anemia infantum pseudoleukemia of Jaksch. The blood count serves to exclude the ordinary splenomyelogenous leucemia absolutely, particularly the small number of myelocytes. "In my opinion this is one of the cases in which an absolute diagnosis is impossible without a study of both the clinical history of the case and the blood. It is, however, not an acute lymphatic leucemia of the variety commonly fatal in a few weeks, for such cases often present 90 to 95 per cent. of lymphocytes, and, moreover, our case has already lasted more than sixteen months."

Dr. STOVER made a few remarks concerning blood counts and the percentage relations of blood elements. He exhibited drawings of the various blood elements and also microscopic slides.

Dr. EDSON called attention to the necessity of clinical facts and blood examination combined. He holds that pure lymphatic leucemia probably never had existed and never does exist, that it is always a mixed leucemia.

Dr. C. A. POWERS read a paper entitled

METHODS AND RESULTS IN 175 CASES OF SIMPLE FRACTURE OF THE FEMUR.

He said: "Of the entire number of 175 cases, 39 were in the upper third of the bone, 113 were through the middle third and 19 involved the lower third: 80 per cent. of the fractures through the neck of the femur occurred after the age of 30, the third, fourth, fifth and seventh decade furnishing the larger number of cases. Of the simple fractures through the middle third, 38 per cent. were in children under 11 years. Their distribution

was: right thigh, 65; left, 56; both, 4; the remaining not noted. Direct violence gave 99, and indirect 31. Symptoms and diagnosis: In the neck, pain, disability, eversion and shortening; average shortening five-eighths of an inch, greatest one and one-half inches. Between the neck and femur, crepitus, local mobility, upper fragment drawn forward and upward, average shortening one inch, greatest thirteen and three-fourths inches. In 77 cases of simple fracture of the middle third, the shortening was one inch; in seven cases, two inches.

All cases except two were treated by Buck's extension; average length of confinement fifty-two days; average shortening on discharge three-eighths inch.

The cases cited in this article were managed before the days of Roentgen rays, which thus far he has not been obliged to make use of in femur fractures. Of just what use it is to be, he is yet uncertain, yet he would not trust its evidences to the exclusion of clinical facts, and believes the cases rare in which palpation and other methods of examination will be insufficient for diagnosis; while there is much to learn from these wonderful pictures and what they mean, we must remember that their medicolegal value is too uncertain to permit of their introduction in courts of law. Of cases of fractures through the middle third of the femur, 41 were treated throughout by plaster-of-Paris splints; 46 cases by Buck's extension. The functions returned as quickly after one form of treatment as after the other. Average shortening on discharge, one-fourth inch; functional result, 39 perfect, 22 evolved well, 5 presented moderate joint stiffness. Delay in ossification of callus was observed in 7 cases. In most of the cases of delayed union a vigorous rubbing together of the fragments at intervals of a few days sufficed to produce union at the end of the third or fourth month. In a man of 42 years, who had non-union at the end of the fourth month, an interrupted plaster splint was applied leaving the seat of the fracture so exposed that the thigh could be actively percussed with a hammer. Union follows in a moderate length of time.

Of fractures through the lower third of the femur, two died, 1 of traumatic delirium tremens, the other of shock; 3 were treated by Buck's extension, 4 by plaster and splint. The average shortening on discharge was three eighths of an inch; functional results, perfect 7, moderate stiffness 3, 2 evolved well when seen one year after discharge.

Dr. Powers advises that phosphorus in some form should be administered in femur fractures.

Dr. MCNAUGHT agreed with Dr. Powers, on all points except as to the X-ray. He favors the use of the double inclined plane.

Dr. AXTELL wanted to know whether the thyroid extract had been used in fractures.

Dr. MIEL favored plaster in cases requiring to be transferred.

Dr. STOVER spoke in favor of the X-rays.

Dr. WARREN said that thyroid extract is known to reduce weight and related a case of ununited fracture of humerus in which thyroid extract was given and union brought about. The weight of the patient was reduced forty pounds.

Dr. BANE showed a new improved probe for packing gauze into sinuses, which by grooving the head, does not slip through the gauze.

Philadelphia College of Physicians.

Section on General Medicine, March 13, 1899.

Dr. D. J. MILTON MILLER read a paper and presented a patient with a

RARE INTRATHORACIC TUMOR.

The patient was a man 38 years of age, American, whose mother had died of cancer. He had previously had typhoid fever and pneumonia. There were no evidences of syphilis. He was not addicted to the use of tobacco in excess. The present trouble began eight months ago, when he noticed a small tumor over the precordia, which has continued to grow until its deeper attachments extend almost from the left clavicle to the fifth rib, is very hard in consistency and not reddened. There is no bruit present. The heart sounds are feeble and best heard one and one-half inches to the right of the sternum. Six months previously there had been considerable pain in the region of the left chest, with some dyspnea. The dyspnea especially continued after the development of pleurisy with effusion, for which the patient has been tapped several times, large amounts of bloody fluid being successively withdrawn. The blood count showed 5,800,000 red and 10,000 white blood-corpuscles per cubic millimeter, with 80 per cent. hemoglobin. This large amount of red cells was thought due to the fact that the blood was concentrated in the peripheral vessels on account of the venous stasis arising from the dyspnea produced by the pleural effusion. A moderate lymphocytosis was present. This blood condition might indicate lymphosarcoma, as considered by some writers.

Dr. JAMES TYSON thought that the clinical symptoms pointed to chondroma.

Dr. CHARLES W. BURR read a paper in which he detailed the history of several cases suffering with

ORGANIC BRAIN DISEASE WITH PECULIAR NERVOUS SYMPTOMS.

Case 1 was due to left-sided cerebral hemorrhage with loss of sense of touch, but pain over the left side was especially severe on slight pressure. The patient was 51 years of age, the onset occurring nine years ago, the palsy affecting the right side. The patient had been speechless and there was stiffness of the right leg. There was no wasting of the right leg or arm. Light pressure over the palsied side caused extreme pain, but the patient can not distinguish the sense of heat; cold is felt as pain, but not as cold. There is a left-sided hemianopsia, the arteries reduced in size and hypermetropia and astigmatism present.

Case 2 was one of cerebral disease with loss of sense of heat and cold, in a patient of 37 years. The onset occurred in October, 1898, manifested by inability to swallow liquids, water being frequently discharged from the mouth. The tongue seemed to be very thick. The patient frequently bites the cheek and tongue during mastication. There was a stabbing pain in the right eye, a limp of the left leg and the left arm was beyond the patient's control. The face on the left side was flattened in its lower portion and with eyes closed the patient can not recognize objects given him. Ophthalmic examination was negative. An autopsy had been made, and a small tumor was reported situated in the floor of the lateral ventricle. Its exact nature was not known.

Case 3 was a patient aged 30 years, addicted to the use of alcohol. In 1894 he became paralyzed on the left side of the body. In 1895, paralysis affected the left side of the face; was deaf in the left ear. There was weakness of the left arm and the knee-jerk was increased, but there was no ankle-clonus. The patient does not respond to pin-pricks and is unable to close the left eye. Examination revealed small arteries, but the exact ocular lesion could not be determined; hemianopsia was probably present. On the left side there was complete loss of sensation to pin-pricks, heat, cold and pressure, but with eyes closed he could tell the nature of an object. The patient is unable to touch the right hand with the left unless the following movements are made: the left hand is first thrown against the sternum, and by a pushing movement is gradually moved over to the right and down the right arm to the hand. The left plantar-jerk causes contraction of the toes. In 1892 the patient was blind in both eyes for a period of six weeks; the pupils reacted to light stimulus.

Dr. J. H. MUSSER related a case of

TYPHOID FEVER WITH HEMORRHAGIC DIATHESIS.

The patient was an American, aged 21 years, and had suffered from epistaxia and diarrhea. Typhoid spots had occurred on the chest and abdomen. The apex-beat was strong and the spleen not palpable; the pulse was dicrotic, 120 per minute; aortic, systolic and mitral murmurs were present. He had suffered from excessive hemorrhage from the mouth and nose; petechial spots were prominent. The Widal reaction was obtained and was positive. An autopsy was performed by a resident of the Presbyterian Hospital and revealed both lungs congested posteriorly, the left ventricle was hypertrophied, aorta much narrower than normal and without the presence of atheroma; the kidney showed evidences of cloudy swelling and were filled with blood; the thymus gland was persistent. Five cases similar to the above have been reported by Osler.

Dr. H. A. HARE spoke on the prevailing opinion that typhoid fever was due to a mixed infection rather than from the presence of the Eberth bacillus per se, and it is his opinion that the hemorrhage in this case arose from the fact that more than one kind of micro organism was diffused throughout the system. Dr. Hare also read a paper on

ACUTE THYROIDISM FROM TRAUMATISM.

The onset had occurred somewhat suddenly after a blow over the thyroid region, which the patient had received by bending over the back of a rocking chair at night. The symptoms were cardiac palpitation, violent headache, mitral murmur not transmitted, breath very fetid. The thyroid gland was considerably enlarged, especially on the right side, and had a reddened appearance; the pulse was 120. Some time later the thyroid had become as large as the fist, but was not tender. There was marked difficulty in swallowing. The symptoms quickly subsided and, according to the patient, ceased in one night. The Doctor thought the symptoms had been caused by acute

thyroidism brought on by the traumatism, which caused an increased amount of secretion from the gland.

Dr. J. H. MUSSER spoke of a case in which he had seen suppuration of the thyroid gland occur during the course of typhoid fever.

Section on Gynecology.

Dr. WILLIAM R. PRYOR of New York (by invitation) read a paper on the

SURGICAL TREATMENT OF PELVIC INFLAMMATORY DISEASES,

with special reference to the vaginal route.

He did not desire to introduce to the gynecologists of Philadelphia any innovation in the treatment of diseases of the uterus and adnexa, for he was well aware of their preference for the abdominal route. But he outlined the technic of vaginal hysterectomy, as it has been of great service to him during the past five years. After drawing down the cervix the first incision is made in the cul-de-sac, and of a crescentic shape. Anteriorly a similar incision is made. In both instances he exercises care in leaving a sufficient amount of vaginal tissue for the purpose of forming union. The finger is passed posteriorly as high as the fundus, for the purpose of detecting adhesions and to aid in pulling the organ into a better field for operating. If any adhesions be present they are gently detached by means of the fingers. The uterus is divided into halves, beginning at the anterior surface first and subsequently the posterior section is made by means of a bistoury and grooved director. Bleeding is controlled by means of large clamp forceps, after which the patient is placed in the Trendelenberg position, and the cavity packed with gauze, using as many as ten or twelve strips four inches wide. A retaining catheter is then inserted, and at the end of forty-eight hours a saline purge and enema are given. At the end of several days the packing and forceps are removed. He thought that the vaginal route had several advantages over the abdominal, from the fact that in the latter hernia was more common (3 per cent)., that adhesions between coils of intestines might occur, that there was greater danger of breaking up recent lymph formations, that a scar was produced and that shock was more common. The main contraindication to the vaginal route was when the uterus was situated high up or when it was abdominal. He had performed operations upon the uterus and appendages by the vaginal route 100 times, including such diseases as pyosalpinx, diffused suppuration, pelvic adhesions, abscesses, etc., without a death, and was under the impression that the vaginal route was the one of election in these conditions.

Dr. J. M. BALDY read a paper on

SURGICAL TREATMENT OF PELVIC INFLAMMATORY DISEASES BY ABDOMINAL METHOD.

Regarding the efficiency of the operation and the nature of the condition, each man must choose for himself. Regarding shock, he had seen only one case at the Gynecean Hospital during the past four years. There had been three cases of hernia, but since he had resorted to a new procedure in the abdominal incision there had been none. He thought that by the abdominal route it shortened the length of time of convalescence. He has seen patients able to leave the bed at the end of two weeks, while the vaginal operation required a longer period. In seventy-two patients operated upon there had been two deaths, one occurring three weeks after the operation, from obstruction of the bowels, the other from septic peritonitis. He thought all operators should bring the mortality below 6 per cent. by the abdominal method. The advantages of the method are that the ureters are not likely to be injured, no danger of forceps slipping; no shock; no hernia; no pain in the scar, and there is less likelihood of doing damage to the internal organs.

Dr. B. F. BAER thought the statistics of Dr. Pryor very alluring, those of Dr. Baldy almost as convincing, but he disagreed with both, that after the ovaries had been removed the uterus should also be sacrificed. It was his custom to leave the uterus because it was of great value as a support to the intestinal organs. From sentimental reasons, too, it should be left. In case of pyosalpinx and gonorrheal endometritis, he preferred leaving the uterus and had seen but little trouble. Complications might ensue, but in a very small percentage, and why should such an organ be removed to satisfy such a small percentage? By the abdominal method drainage was hardly ever required, while the vaginal method always required it, thereby being a possible means of infection.

Dr. WELLS of the New York Polyclinic stated that when he first began investigating the claims of Dr. Pryor he was somewhat opposed to the vaginal operation, but now could entirely agree as to the advantages of his method. In doing the operation, however, more skill was required than in the abdominal. He spoke of a case in which sepsis had followed an operation, and in which there had been very high fever at the time the uterus was removed by Dr. Pryor's method, within forty-eight hours the temperature had dropped to normal.

Dr. JOHN B. DEAVER argued with Dr. Baldy in preferring the abdominal route, for adhesions could be better broken up, concealed abscesses evacuated, less risk of tearing the bowel, and less danger of injuring the ureters. It should be chosen because the surgeon could see every step he was taking, while in the vaginal operation this was impossible. In protecting the bowels he had stopped using pads and sponges, preferring loose folds of gauze in these cases. In opening the abdominal cavity he always selects that portion corresponding to the rectus muscle, because there is less danger from hernia than through the linea alba or linea semilunares.

Dr. CHARLES P. NOBLE preferred the abdominal incision. He had resorted to the vaginal operation in probably fifty instances, but each time loses faith in it. He was afraid of the drainage necessarily required. He had seen very few cases of shock.

Dr. H. D. BEYEA read from statistics of Dr. Penrose who preferred the abdominal method. In 178 cases there had been but five deaths.

Dr. PRYOR states that he always practiced conservative surgery and that while the abdominal method had certain advantages, his record upheld his claims for preferring the vaginal route.

Philadelphia Pediatric Society.

Meeting March 14, 1899.

Dr. C. S. POTTS presented to the members of the society a case of

FRIEDRICH'S ATAXIA,

occurring in a girl aged 5 years. The symptoms had gradually developed, the most characteristic being marked inco-ordination in movements, especially on closing the eyes; patient rolls from side to side and would doubtless fall if she tried to walk; the jerky movements of the head were also observed, as well as a similar condition of the arms. The movements of the hands were very clumsy and she had great difficulty in picking up objects. A slight degree of talipes varus also existed. The eye ground was normal and the mental condition good. The facial expression was also quite characteristic of hereditary ataxia in that the face had a dull expression, mouth open, eyes partly closed or droopy. The patellar reflex was entirely gone.

Dr. J. P. CROZER GRIFFITH stated that he had seen three cases of this disease last year in the hospital, and in all had met with twelve or thirteen cases. He thought the expression of the face in this patient quite typic. In one case he had seen, with symptoms of Friedrich's ataxia well marked, the diagnosis was chorea, due doubtless to only a superficial examination having been made. He thought many similar cases had been reported as chorea. Regarding treatment, he had several times resorted to suspension for long periods of time, but could not say that it had been beneficial. He asked Dr. Potts how he accounted for the patellar reflex being different in the case of Friedrich's ataxia and that of ataxic paraplegia, which Dr. Potts explained upon the ground that in ataxic paraplegia the area of sclerosis was higher up in the cord and more localized or circumscribed and the knee-jerk escaping, while in Friedrich's ataxia the areas of sclerosis were more diffused and as a rule situated low down in the cord, thereby causing abolition of the patellar reflex.

Dr. C. W. LEFEVER presented a case of

ACUTE DILATATION OF THE HEART,

with reference to the use of digitalis in the treatment of these cases. The patient was 4½ years of age; birth was normal; at six weeks of age it was put upon cow's milk, upon which it did well, cutting teeth at the proper time. The father and mother had been healthy, but there was a history of hemophilia in family. At the age of five months the child began to suffer with considerable cough and nausea at intervals; subsequently had an attack of pneumonia from which it recovered with much difficulty. Upon physical examination the following condition was found: Weight 28 pounds (May 10, 1898): marked cyanosis of lips; superficial veins distended; fingers not clubbed, but hands and feet cold; chest in region of precordia has a bulging appearance; over this area a thrill was detected on palpation, especially in the region of the sixth interspace. The liver dulness had never been increased upward, the dulness being found in the eighth interspace; liver dulness extended downward as far as the anterior superior

spine of the ilium and as far to the left as the spleen. The left lobe of the liver was considerably enlarged. Some pain was manifested on pressure over the enlarged liver. The lungs were hyper-resonant. A loud systolic murmur was heard over the apex of the heart. The patient had been confined to bed and given a nutritious diet. The feet and legs had been wrapped in blankets. Tincture of digitalis had been given, 5 drops three times daily, and gradually increased to 15 drops three times daily at the end of six weeks' time. For a while as much as twenty-four drops had been given three times daily, with no bad results. Within a short time after digitalis had been given the liver dulness began to decrease in area, with gradual abatement of the symptoms except that the thrill and heart murmur were still present. At the present time the child appears to be in good condition and weighs forty pounds. The edema of the hands and feet has disappeared. Some tenderness still exists over the liver, the dulness in this region extending from the eighth interspace to one inch below the costal margin on right side. Dr. Lefever was under the impression that the case was one of dilatation of the heart and that digitalis had done much good, in that it had a trophic influence upon the heart muscle, and in relieving the engorgement of the liver and peripheral circulation.

Dr. A. O. J. KELLY desired to know why the case should not be looked upon as being due to endocarditis rather than as dilatation.

Dr. J. P. CROZER GRIFFITH was not quite certain from the examination that mitral stenosis could be entirely excluded.

Dr. GRAHAM stated that the effects of digitalis upon the heart muscle had been worked up pretty thoroughly by Dr. H. A. Hare, several years ago. Dr. Hare had taken four pigs, from a litter of eight, and had given them powdered digitalis. Later, all were killed, and in those which had been given digitalis the heart muscle in each instance weighed more than in those which had had no digitalis.

Dr. LEFEVER, in reply to Dr. Kelly's question, stated that he had based his diagnosis upon the fact that the onset had been slow, that a physical examination had revealed the symptoms of dilatation, that the hands and feet were cold and with a certain amount of edema existing, that the superficial veins were engorged, that high fever had been absent, and that he did not find the most important symptoms of endocarditis present.

Dr. J. H. JOPSON exhibited a case of

PATULOUS MECKEL'S DIVERTICULUM,

through which the feces were being extravasated. The patient was four months old, and the family history negative. The umbilic cord had dropped off at the end of four days. On the second day there had been an enlargement in the umbilicus region, followed by formation of a fistulous tract through which feces began to be extravasated. A considerable amount of granulation tissue had formed around the opening, into which opening a probe could be passed.

Dr. T. S. WESTCOTT exhibited a graduated glass jar which he had found serviceable in estimating amount of sugar of milk rather than having the substance weighed.

Dr. F. S. PEARCE read a paper on

TRAUMATIC NEURITIS WITH COMPLETE MONOPLEGIA OF RIGHT FOREARM.

A boy, 14 years of age, had sustained a fracture of the forearm, union taking place in due time, though motion was not established. There was paralysis of both motion and sensation of the right forearm. At the end of several months there was no improvement, and an operation was performed by Dr. Charles H. Frazier. The musculospiral nerve had sustained considerable damage and was firmly bound down by adhesions. The adhesions were broken up, the nerve dissected from its bed, after which the wound was closed. After union was firm, massage was resorted to. The boy is now able to grasp some objects quite firmly and can write his name. Sensation is returning and he can move the hand moderately well.

Dr. L. J. HAMMOND read a paper on five cases of cerebellar abscesses treated in children. Regarding the etiology of this condition, he thought diseases of the nasal and tympanic cavities responsible for most of the cases; mastoiditis very frequently gave rise to cerebellar abscess. The most typic symptoms were contraction of the forearm, outbursts of crying or muttering, inability to comprehend questions asked, pupils dilated, absence of optic neuritis, pulse about 110, glycosuria and symptoms of involvement of special nerves according to region affected. Trephining is indicated at the earliest possible moment.

Dr. J. P. CROZER GRIFFITH read a report of several interesting cases he had treated. The first case was one of acute yellow atrophy of the liver occurring in a child 7 years of age, with all the typic symptoms, jaundice, diminished liver dulness, light colored stools, and the presence of leucin and tyrosin in the urine. The second case was one of angioneurotic edema in a child 2 years of age. Urticaria was an intercurrent complication during the attack. Dr. Griffith also spoke of two cases of masturbation. In the first instance the child was only six months of age, and in the second, thirteen months. He could not state definitely that the habit was due to hereditary influence. He had examined the region of the clitoris in both instances, but found no accumulation of smegma, to which some writers have attributed the cause of this vice. Regarding treatment, he thought some mechanic device should be used so that the thighs could be kept apart. The third case was one of nervous incontinence of feces.

Dr. J. H. MCKEE read a paper on

INFLUENCE OF PLAY ON DEVELOPMENT OF CHILDEEN,

in which he thought that the play brought into action all of the stimulus necessary for the full development of both the brain as well as the muscular system. To play, he contended, was the natural bent of the child, and as it was entered into zealously was most necessary to complete the development of both male and female offspring.

Dr. GEORGE H. WOODWARD read a paper on "Streptococcus Infection in Milk." In one instance a microscopic examination of milk had detected pus-cells and streptococci. Those who had used this milk had been repeatedly rendered unwell.

Philadelphia Pathological Society.

TYPHOID ULCERS.

Dr. JOSEPH SAILER presented a specimen showing typhoid ulcer in a Meckel's diverticulum. The specimen had been obtained from a person with well-marked lesions of the disease in the small intestines, and is of interest from its rarity.

Dr. DAVID RIESMAN read a paper and presented a card specimen of a case exhibiting typhoid ulcers in the esophagus. The patient, a boy 17 years of age, had presented a well-marked attack of typhoid fever, and a positive Widal reaction had been obtained. At the autopsy quite a large number of typic ulcers were found in the smaller bowel, having a longitudinal direction and a tolerably well-marked area of congestion at the base. On opening the esophagus, three ulcers were found to be present, the upper one being several millimeters distant from the gullet, the second and third immediately below. All these ulcers had a longitudinal direction and their edges presented a velvety appearance and, mounted on an inflammatory base, they macroscopically presented all the characteristics of ulcers occurring in other portions of the body in this disease. At the apex of the right lung, a moderate-sized patch of lung was found in which a croupous pneumonia had begun. The heart was especially interesting from the fact that the pulmonary valve was composed of four leaflets and the aorta was very small. He thought the size of the aorta had something to do with the unfavorable symptoms which manifested themselves toward the close of the disease. Cultures had been made of the cerebrospinal fluid and that from the pleural cavity by Dr. L. Napoleon of Boston. They showed the presence of micro-organisms having the characteristics of the colon bacillus. He had not found the Eberth bacillus in the ulcers from the esophagus. He thought that possibly the reason ulcers were not more frequently found in this region was because they were not looked for, and that their presence in unsuspected cases might account for stricture of the esophagus, which had been noted in one or two instances, one being reported by Osler.

Dr. H. A. HARE emphasized the importance of ulcers frequently found in the vermiform appendix, and of their being the etiologic factor in the production of appendicitis, by no means a rare condition during the course of typhoid. He cited instances to show that typhoid ulcers had been found in various portions of the alimentary canal, and stated that this fact of the distribution of the disease throughout the system might account for the troublesome complications of the inflammation of the pharyngeal tonsils, which are frequently noted.

Dr. ALFRED STENGEL had, in quite a number of autopsies, made at the German Hospital several years ago, found typhoid ulcers of the vermiform appendix so frequently that he had ceased to note it as being a rare condition. In some instances he had found multiple ulcerations. Ulcerations had been found when the appendix was patulous, or when it was closed.

Dr. D. L. EDSAL spoke of certain instances in which a chronic form of pharyngitis had been noted during the course of typhoid fever.

Dr. HARE stated that after carefully looking over the literature on typhoid ulcers he had found that as far back as 1827 one author had noted this occurrence as being quite common. For several successive years typhoid ulcers were reported; then for forty years or more a period of quiescence occurred, and now we are beginning to find them again.

Dr. JOSEPH SAILER and Dr. LLEWELLYN reported a case of

MENINGITIS FOLLOWING ENDOCARDITIS.

At the autopsy it was found that certain sclerotic areas were found both on the upper and lower portions of the middle lobe of the cerebrum, as well as in several other regions. It might be possible that in certain cases in which epilepsy manifested itself later in life, the attacks might be due to a localized meningitis having occurred during infancy.

Dr. WILLIAM G. SPILLER spoke of the morbid anatomy and its mode of production, which he thought primarily originated from the irritation of the nerve-cells, subsequently affecting the neuroglia tissue.

Dr. ALFRED STENGEL presented a specimen of

COLLOID CARCINOMA OF THE STOMACH

with peritoneal extension and metastasis, and called attention to the small size of the cavity of the organ, which was not much larger than that of the large intestine, the pyloric orifice being only of minute size. The walls of the stomach were from one to two centimeters in thickness in certain areas; metastasis had occurred in the surrounding peritoneal surfaces, producing a very large mass which had been easily detected by palpation. Quite a large number of nodules studded the surface of the right lobe of the liver on its under surface and posterior edges. Along the anterior edges there were no nodules which could be elicited by palpation. On making a section of the whitish nodules the milky or cheesy mucoid substance exuded. He referred to the teaching of some authors, of the slowness of metastasis in cases of colloid cancers, doubtless due to the material of which it was composed.

Dr. HARE spoke of one or two instances in which death had occurred from carcinoma of the liver and in which no nodules could be detected on palpation.

Dr. WM. G. SPILLER presented a specimen of brain showing the effects of an

INTERNAL HEMORRHAGIC PACHYMENINGITIS.

In this case the calvarium was removed with great difficulty, on account of the adherent dura. On detaching the dura it was found that it was composed of two separate and distinct membranes. Quite a large collection of blood had exuded when the brain was exposed.

Dr. Wm. L. COPLIN spoke of

JENNER'S NUCLEAR STAIN,

which he said gave good results. In certain instances he had noticed that the washings which were derived from the precipitate formed by the mixture of eosin and methylene blue had been found to act admirably as a nuclear stain.

Wayne County Medical Society.

Regular Meeting, March 16, 1899.

Dr. J. A. PATTON read a paper before the society on the subject of

BILIOUSNESS.

The Doctor referred to the apparent triviality of the subject and the general lack of attention given it by the average physician. He declared, however, that biliousness is most important, not only because it may be the condition which is liable to render one susceptible to the successful attack of some grave disease, but also because it is a factor to be reckoned with in the treatment of most acute diseases sooner or later. "Indeed," he said, "the treatment of typhoid fever itself resolves to a greater or less extent into the treatment of the results of biliary insufficiency and the consequent fermentation and putrefaction of intestinal contents." He further said that often symptoms of a grave constitutional disease are developed and cause the attending physician a great amount of study and care, leading him to predict an attack of meningitis or an approaching fever, when the light of later events reveals that the case is only an attack of biliousness.

Biliousness was described as a term used to designate a condition of the system rather than a disease, a condition depending upon a lack of the bile, its retention in the bile-ducts or a perversion of its functions. The symptoms enumerated by the author include the following: dizziness; depression; languor; headache; pasty, coated tongue; anorexia; usually jaundice; scanty, highly-colored urine; clay-colored, pasty stools; flatulence and discomfort, and pain throughout the body, described by the patient as "bone ache." The attack is usually slow in onset; sleep is disturbed and unrefreshing, the appetite is disordered; the bowels are irregular and jaundice usually develops. There may be chills and fever or a subnormal temperature. In advanced cases nausea and vomiting often occur, the vomit usually containing bile which has been regurgitated from the duodenum. The etiology, as given by the Doctor, depends, primarily, upon indigestion and the consequent fermentation and decomposition of the food in the alimentary tract; secondarily, upon changes in the bile itself, with a further derangement of the whole digestive apparatus. The pathologic conditions given by the author were principally those of the liver. The functional disturbance in the alimentary canal leads to disordered nerve action in the liver; the bile is changed in quality and is retained in the ducts; the liver fails to eliminate the toxins from the blood sent to it and these circulate throughout the system, producing all the mental and nervous phenomena. The treatment outlined was dietetic and medicinal. Proper food or even fasting at first, calomel, ipecac, sodium phosphate and bicarbonate, podophyllin and aloes were the most important remedies given.

Orleans Parish Medical Society.

New Orleans, March 11, 1899.

Dr. M. J. MAGRUDER reported a

CASE OF PARTURITION IN A GIRL OF TWELVE YEARS.

The patient, white, was born in April, 1886, and began to menstruate during the summer of 1897; menstruation ceased in February, 1898, when she was but 11 years and 10 months old. The period of gestation was uneventful. Labor came on at 3 P.M., Nov. 21, 1898, and terminated at 1 P.M. the following day. After the birth of the child, which weighed nine pounds, and is believed to be the largest on record born to a mother of this age, profuse hemorrhage occurred from the relaxed uterus. The placenta was removed with the hand in the uterus, and hot water was injected into the uterine cavity. The temperature of the injections was such as to destroy the lining of the organ, which was thrown off in a complete cast in a few days. The constitutional effect of the hemorrhage was profound; the girl became unconscious and pulseless. Strychnin, atropia, nitrogen and digitalin were given hypodermatically (ergot had been injected as soon as the hemorrhage occurred). Hypodermatoclysis was resorted to, between one and one-half and two pints of saline solution being injected under the skin over the abdomen. After two hours the radial pulse was again palpable; nine hours later consciousness returned. Convalescence was speedy.

Dr. H. A. GABERT exhibited the photographic negative of a case which he promised to report in full at a later date. It was that of a woman who had suffered with rheumatic symptoms for many years; gradually the upper part of the spine had become bent forward until the chin rested on the chest, and extension of the neck could not be effected. The latter condition has now existed for three years.

Chicago Academy of Medicine.

Meeting of Feb. 28, 1899.

(Concluded from page 611).

FORENSIC RELATIONS OF NEPHRITIS.

Dr. HAROLD N. MOYER—There is practically nothing written upon the forensic relations of the kidneys. There is an entire absence, considered apart from the mere report of cases, in the systematic treatises on legal medicine; yet the subject is one that is not devoid of interest from a medicolegal standpoint. We are to remember that the kidneys are vital organs, and there is no vital organ but what has important medicolegal relations. The ordinary injuries and accidents to which the kidney is liable are met in court by the ordinary knowledge possessed by physicians; therefore, we will not burden you with a description of chance cases as they may present themselves, because they can be dealt with from our general surgical and medical knowledge.

I want to call your attention especially to two legal relations which the kidneys have, and which are not referred to in the books. The first deals with the possibility of an injury to the kidney, shown by the presence of blood sometimes, by the presence of albumin always, and sometimes casts in the urine. I have met three such cases which were subjects of medicolegal inquiry, the parties having brought suit for the injuries. Part of the symptomatology of those cases were those named.

One longer under observation than the others was a man injured by being run over. A heavy wagon passed over the loins, and among some rather insignificant nervous symptoms he presented a copious hematuria, followed by albuminuria and casts in the urine. This lasted for some weeks. There were no vascular changes, and prior to the accident in question the man had always been well. He made a perfect recovery. I examined his urine at intervals for two years following the injury. I believe he sustained a serious injury to the kidney, which produced albuminuria and casts, and which subsequently cleared up. I have seen two similar cases, but not so well studied. It is possible that injuries of the kidney may have a medicolegal interest in a case of ordinary damage suit.

The other point to which I would specially direct attention is uremia, and Dr. Preble has fortunately saved the necessity of general remarks on that subject. I agree with his endorsement of Bouchard's views. We may have uremia without appreciable alteration in the kidneys. I believe that it is responsible for some cases of sudden death. Cases are met with by those who make examinations of dead bodies to ascertain the cause of death for medicolegal purposes in which absolutely no change can be found in any of the vital organs—the brain, heart, lungs and kidneys are seemingly normal. Death by the heart or by the brain almost always leaves distinct traces that can be seen post-mortem. I have believed for some time that uremia explains some of the peculiar, and by no means rare, cases. The experimental data which have been accumulated regarding the relation of the kidneys can not be explained on any other theory than that in uremia we have an exceedingly complex poison, not necessarily one that fails to be eliminated by the kidney. These symptoms may gradually appear from some disturbance in the metabolism of the tissues or glandular organs other than the kidneys, and present identic symptoms with those that follow advanced kidney disease. I believe some of the cases of sudden death attended by coma are explainable in this way. The subject is an important one from a forensic standpoint.

BIOCHEMISTRY OF NEPHRITIS.

Dr. JOHN A. WESENER—The standard specific gravity for normal urine is usually given as 1018 to 1030. This, however, is only a rough index, as it may be as low as 1002 or as high as 1035, and still remain a normal urine. Hysteric and nervous individuals excrete a large quantity of urine, the specific gravity of which is low. On the other hand, inactive individuals excrete a concentrated urine of high specific gravity. They are usually poor water drinkers, but hearty eaters. In an examination of 3000 urines, we found that 74 per cent. had a specific gravity of 1018 or higher; 26 per cent. were below this standard. Twelve hundred of these contained either albumin, casts, blood, pus or sugar. Out of 901 pathologic urines, 68 per cent. gave a specific gravity of 1018 or more, with 32 per cent. below that.

Taking all the urines as they come to the laboratory, we find a normal specific gravity in about 75 per cent. of them. Forty per cent. of all urines with a specific gravity below 1015 were pathologic. An exact deduction from these figures can not be given, inasmuch as the total quantity passed for the twenty-four hours was not always designated. Under the pathologic urines we find the specific gravity normal in 68 per cent.; but no practical conclusions can be drawn from this, as a large number of these were from cases of acute nephritis, glycosuria, hematuria and pyuria, in which case the specific gravity is usually above 1018.

Urea is one of the end-products of nitrogenous metabolism. The normal amount varies between 2 and 3 per cent. during the twenty-four hours. It is formed in the liver from the peptones, and in all cells from the oxidation of protoplasm. Inasmuch as it is very soluble in water, we have the right to assume that if the kidneys are able to excrete water they will then also excrete the urea. According to Bouchard, 6.31 grams of urea are necessary to kill one kilogram of animal. To kill a man, therefore, of 60 kilograms weight, it would require 380 grams of urea at one dose. Or take it this way: A 60-kilogram man excretes 20 grams of urea in twenty-four hours; in order to produce the grams of urea necessary to fatality he would be 19 days making it, without any elimination during all of this time. Urea is nature's diuretic, and to my mind should be used in preference to all others. By some, urea is supposed to be toxic, doubtless associating the term "uremic coma" with this harmless compound. Others claim that it is non-toxic, but when greatly diminished should then be taken as an indication of the retention of other toxic products found in the urine. Why not go a step further and say that the total amount of urine excreted with a normal specific gravity should be taken as the index?

Out of 741 urines which contained no albumin, sugar, casts, etc., 53.3 per cent. contained the normal amount of urea. This goes to show, as I have already stated, that if urea is formed in the body, and the kidneys are able to excrete water, they will also eliminate the urea. The total amount eliminated varies with the kind of food taken. Nitrogenous food increases it, not alone on account of the proteids ingested, but because this increase stimulates cellular activity, and consequently increases oxidation. On the other hand, carbohydrates do not furnish nitrogen to the body, hence oxidation is decreased and the proteid matter is not expended.

Charrier claims that healthy individuals excrete normally three grams of potassium chlorid daily, whereas nephritics usually have retention of one-third to two-thirds of this amount. In one case he found in the vomited matter a large increase in the potassium salts, and in three other cases he found an abnormal increase of this salt in the urine. Bouchard found in his investigation along this line that most of the toxic action of urine, both normal and abnormal, depended on the potassium salts. Aiello and Cacace show that the urine of nephritics is most toxic when nitrogenous food only is taken; less on a mixed diet, and least on a strictly milk diet. Kolich's work proves that the total alloxan bases in nephritics are not diminished. To my mind, too much stress has been laid on the total output of solids in nephritic urine. If you diet an individual, giving largely milk, etc., you can not expect as large an elimination of urea and other products, as you would on a full diet.

Not long ago it was supposed that serum albumin was the only proteid of importance found in the urine. To-day, urine is tested not only for serum albumin, but for globulin, oleoresin and peptones. This certainly makes it somewhat more difficult for the ordinary practitioner to make a correct differentiation. Of 901 pathologic urines, 13.7 per cent. contained albumin and casts, with a specific gravity of 1018 and higher; 8 per cent. with casts and albumin had a specific gravity below 1018; 2 per cent. contained only albumin. My object in giving these percentages is particularly for the purpose of discussing so-called physiologic albuminuria. I make the statement yearly to my class that I believe the number of undiscovered cases of acute nephritis which recover is greater than those diagnosed and treated.

Arnozan stated that certain authors, Senator in particular, admitted that albumin was a normal element of urine, but this opinion is rejected at the present time by the majority of chemists and physicians. Others, such as Capitan, Leube and Stewart, thought that albumin might exist in the urine accidentally and in a transitory manner; that is to say, that there is a physiologic albuminuria independent of all diseases. According to Lecorche and Talamon, all albumin is pathologic. L. Pizzini also states that all albuminurias are pathologic. He differentiates spurious albuminuria from genuine albuminuria. It seems that this experimenter followed the same method of concentrating the urine (after dialyzing), but removed the globulin body which is nearly always present, by the use of a saturated magnesium sulphate solution, and then testing the filtrate for albumin. He states most positively that when albumin was found it always indicated that there was a lesion in the kidney. As normal urine contains leucocytes and epithelium, it naturally would follow that a trace of globulin is always present. Peterson and Paykull found one case of genuine albuminuria out of seventy cases of normal individuals examined.

The total per cent. of proteid matter found in these urines was 14.3 per cent., but with the one exception, these were all of a mucin or nucleo-albumin nature. To study this question experimentally, I put three normal individuals on a diet of raw eggs given at breakfast time; the urine passed was collected during the forenoon and tested for albumin, the results being entirely negative. The test employed would show as little as one part in 120,000.

I have had an opportunity of examining a number of cases of transitional albuminuria. In these casts were seldom found; yet I consider these cases as pathologic. If we take into consideration the metabolism of the nitrogenous food, several changes in its molecules must be thoroughly understood. Some of the peptones are probably absorbed by the liver and there burned up into urea; whereas most of the peptones pass through the intestinal wall and are changed into serum albumin. Egg albumin can not readily pass through, because it is not dialyzable. Furthermore, it is a foreign body to the organism, and as such could not be utilized. Serum albumin, on the other hand, is physiologic to all tissues. If it is increased in the blood-vessels, it must be gotten rid of by being stored up or removed by increased metabolism. It is not removed by a normal kidney.

In condensing these statements, it must be admitted that a urine can not properly be called pathologic unless all the facts

are thoroughly considered. The specific gravity and urea can not be taken as an infallible standard. The presence of albumin, in the absence of casts, does not necessarily mean symptomatic kidney disease. A few hyaline casts, with specific gravity normal, does not necessarily mean symptomatic kidney disease.

GASTRO-INTESTINAL DISEASE IN RELATION TO NEPHRITIS.

Dr. FENTON B. TURCK—Remarkable as it may seem, there is really extremely little known of the conditions of the stomach and intestines in cases of nephritis, and still less, practically nothing in fact, is known of any causal relations that may exist between gastro-intestinal diseases and nephritis with albuminuria. The reason our information on this subject is so meager is largely to be found in the fact that up to the very last few years we have had no means of making any exact observations in regard to the conditions of the gastro-intestinal tract. We thus find, on the one hand, that observations which have been made on the subject concern almost exclusively the chemistry of the stomach, together with a very few observations in regard to disturbances of motility, and these observations, moreover, do not at all agree among themselves, and they are, as Riegel points out, altogether too scanty, and probably too inaccurate, to permit us yet to accept any conclusions drawn from them.

Thus we find that Schneider, Krowkow and Zipkin have recorded some observations on the stomach contents, but as hypo-, hyper- and anacidity are recorded, and one condition about as frequently as any other, we can draw no conclusions whatever from their results. Biernacki, who has reported some twenty-five cases, found HCl either diminished or absent in all these, and further reports what he considers increased motor activity for a number of the cases.

Notwithstanding the few and scanty results which have so far been obtained from a study of the gastro-intestinal tract in nephritis, the subject must be considered extremely important, and further and more careful work will surely bring out facts of the highest importance to the right understanding and treatment of this disease. That this must be so is evident when we consider that the gastro-intestinal tract acts vicariously for the kidneys when the latter fail to properly eliminate the substances that they normally excrete. Among the excretions normally eliminated by the kidney are a number of substances which produce so-called uremia, toxic substances which enormously aggravate the condition of the patient, if allowed to accumulate in the system. These substances must largely be eliminated through the gastro-intestinal tract, or they will accumulate and will then rapidly intensify the progress and the complications of the disease. Dietetics is, moreover, already recognized as the most effective and, in some cases, the only way by which we can retard or check the disease, and it is evident that no dietetic treatment can succeed unless we know the condition of the digestive tract. Gastro-intestinal disorders, moreover, will not only often make a cure of nephritis impossible, but such disorders can also, in all probability, be looked upon as one of the causes of the renal disease, since in such gastro-intestinal disorders the toxic substances producing kidney lesion may be largely produced in the digestive tract itself. A thorough investigation of the gastro-intestinal tract is therefore absolutely essential to rational therapeutics in nephritis.

In the course of the past few years I have had occasion to examine a considerable number of nephritic patients with regard to the symptoms and pathologic conditions found in the digestive tract. The symptoms may perhaps conveniently be divided into two classes: 1, such as are purely gastro-intestinal symptoms; 2, symptoms of uremia, modified or intensified by the gastro-intestinal disorder. The first group include such symptoms as are generally ascribed to indigestion: eructation of gases, pressure and heaviness in the epigastric region, pain and distress, etc., vomiting, intestinal disturbances, constipation and diarrhea. Hematemesis and hemorrhage of the bowels need not be considered here, because these are usually due to the same vascular changes that occur in other parts of the body, and they are, therefore, not peculiar to the stomach and intestines. The second group of symptoms found in nephritis are those of uremia. These symptoms are also found in cases where there is no nephritis, and are moreover, in cases of nephritis, often so masked by other gastro intestinal symptoms that it becomes impossible to tell which are due to the kidney lesion and which to the gastro-intestinal disorder. Some of these uremic symptoms, moreover, disappear as the condition of the digestive tract is improved.

In regard to the pathologic conditions found, I must state that I have so far observed chiefly chronic nephritis. The pathologic conditions in these cases are: 1. Chronic gastro-enteritis, characterized by large accumulations of mucus which may sometimes be of a thick, ropy character, or simply accumulations of mucus on the walls, and can be easily removed by means of the gyromele, followed by the needle douche. 2. In lavage of the colon I have frequently found large amounts of scybalous masses mixed with mucus, or large, flat membranous substances, composed mostly of mucin and exfoliated cells from intestines and colon. The mucus is often mixed with leucocytes and colonies of bacteria. 3. One of the most common conditions found is the atony of the gastro-intestinal tract, which invariably results in retention of materials which undergo decomposition, and further affects the kidneys by throwing into the circulation substances that are partly digested, and other toxic substances, which increase the work of the already crippled organ, the kidney. It might be assumed that the catarrhal condition and the atony of the gastro-intestinal tract may be due to toxic substances acting either directly upon the gastro-intestinal walls in the process of their elimination, or indirectly through the action of these toxic substances upon the nerve-cells, or upon the vascular area of the stomach and intestines, and this indirectly produces the pathologic conditions found. Whatever view may be taken of the subject, the fact which deserves attention is that atony and disturbances of motility are the chief pathologic conditions found, and when these conditions are restored, not only is there an improvement in the gastro-intestinal and uremic symptoms, but also often a disappearance of the albumin and casts in the urine. This is not only true of intestinal albuminuria, but I have also found the same marked, general improvement to follow an improvement of the gastro-intestinal motor power, even when the nephritis was seemingly the direct result of typhoid fever and septicemia. Taking into consideration those facts concerning the gastro-intestinal tract in nephritis, it is evident that due regard to the condition of the digestive tract becomes highly important in any successful course of treatment. The points to be sought in such treatment are: 1, an increase of the nutrition of the patient; 2, reduction to a minimum of the formation of toxins. Both these points are to be obtained by improving, if possible, the preparation of the food in the stomach by improving the churning, the motor, and the secretory power of this organ, and by improving the circulation of the gastric and mesenteric vessels, whereby the disturbances in the renal circulation are also indirectly relieved. My methods for accomplishing these ends are by this time reasonably well known, and, therefore, need no discussion here.

In conclusion, I wish, however, to call your attention to one important point, namely, that by the use of heat in the splanchnic area we not only stimulate the mesenteric but the renal vessels as well, and this treatment, as used in my practice, may have quite a decided effect upon the kidney. To this effect is further added that of a much increased peripheral circulation, and consequent elimination of toxic products through the skin. It may perhaps not be amiss to point out that by improving the mesenteric circulation and the motor power of the stomach and intestines, we also increase the eliminating power of the gastro-intestinal tract to a maximum, thus relieving the kidney and giving it a chance to recover.

OCULAR RELATIONS OF NEPHRITIS.

Dr. J. G. HUIZINGA—There are two ways in which vision may be impaired as a result of nephritis.

In the first place there are those cases in which the visual centers are primarily affected as a result of the blood being surcharged with excretory matter. There will be sudden blindness coming on shortly before the attacks of acute uremia, accompanied by severe headache, dizziness, and all the characteristic symptoms of disturbances of circulation in the brain, lasting during the attack and sometimes for days or even months afterward. Ultimate restoration of vision is the rule. The fundus in these cases presents nothing abnormal.

In the second place, there are those cases in which the impairment of vision is due to pathologic changes in the retina itself, which are undoubtedly the result of a diseased condition of the blood-vessels. The retina does not receive its proper nutrition, resulting in a fatty degeneration often in the neighborhood of the macula, characterized by a stellate figure, which is nothing more than a fatty degeneration of the radiating fibers of Mueller. There may also be an inflammation of the optic nerve, a true papillitis, with enlarged and tortuous veins and narrowed arteries. There are almost always, or in the majority of cases at least, hemorrhages in different parts of the retina. If these are in the neighborhood of the macula there will be great impairment of vision. There may be plaques of exudate covering part of the retina, usually in the neighborhood of the disc, sometimes assuming the form of miniature snowbanks, as de Schweinitz mentions, I believe, which are quite large at times and may interfere very much with vision. How-

ever, the largest majority suffer no impairment of sight, because the macula has not been encroached upon either by exudates or hemorrhages.

The trouble that first compels a certain percentage of these patients to seek medical advice is the failure of vision. The physician, noticing the conditions in the fundus, orders an analysis of the secretions from the kidney and thus arrives at a diagnosis of nephritis. The percentage of cases in which the retina is affected is about 30 to 35. This varies according to different authorities. According to latest investigations, the percentage of cases in which the retina is affected has been underestimated rather than overestimated. In a large number of cases of nephritis the retina is never examined, because there is no occasion for it, but lately some investigators—I forget their names just now—have taken the trouble to make an ophthalmoscopic examination in every case of nephritis they met with, and have found a larger percentage of retinal troubles than they would have found had such an examination been neglected. The point is this: unless the pathologic changes are in the neighborhood of the macula, the chances are that the acuity of vision will not be impaired and consequently neither the attention of the patient nor that of the attending physician is directed to the eye, while, if an ophthalmoscopic examination were made there would undoubtedly be found many cases in which cross-lesions in different parts of the retina would be present.

Dr. REUBEN PETERSON—While the facts presented by Dr. Ferguson are no doubt interesting, in that pain supposedly located in the kidney and due to disease of that organ disappeared after operation, I am not at all convinced that in all the cases reported nephritis existed. Dr. Wesener has brought out the fact that it is at times an extremely difficult procedure to make a diagnosis of nephritis by mere examinations of the urine, which reveal a small amount of albumin and perhaps hyaline casts. Certainly, mere pain in the kidney does not justify us in making a diagnosis of nephritis. We must, on the other hand, accept the diagnosis in those cases where a portion of the kidney was subjected to microscopic examination. Even here we must be careful not to ascribe too great benefits to the operation because of pain and other symptoms decreased in severity. If, as stated by Dr. Preble, the changes in the kidney in nephritis are parenchymatous and interstitial, I can not see how the mere splitting of the capsule of the kidney can produce any lasting benefit. I understand that Dr. Ferguson is contemplating some experimental work along these lines, and I am sure we shall watch with interest the results of these experiments.

Dr. R. B. PREBLE—I would like to call attention to the looseness with which some of the members have used certain words. In the first place, Dr. Pusey uses the word "albuminuria" as synonymous with "nephritis." They are not synonymous terms. Albuminuria is one condition, and nephritis another. Albuminuria is a symptom of nephritis, and we sometimes have cases of nephritis without albuminuria. Then, too, I think Dr. Paddock spoke of puerperal eclampsia and nephritis in its relation to pregnancy as being synonymous. They are entirely distinct from each other. These criticisms, however, are not of very great importance. But I think a special criticism ought to be made with reference to the use of the word "nephritis" by Dr. Ferguson. Properly speaking, it would be a diffuse inflammation of the kidney.

There are certain forms of inflammation of the kidneys which are susceptible of surgical treatment. These forms of inflammation of the kidney, however, present a quality present in all afflictions capable of surgical treatment—they are local. These are the so-called pyelonephritis, ascending inflammations from the pelvis of the kidney. The bulk of the cases reported by Dr. Ferguson are instances either of this form of inflammation, or of some other localized inflammatory process. For example, the cases in which a number of cysts or abscesses were punctured are of this sort, and have little or no bearing upon the subject of nephritis.

In regard to the last two cases, the report is interesting. So far as the result was concerned in the case where the woman complained of dorsal pain, relieved by operation, I do not think it has very much, if any, bearing upon the question of the surgical treatment of nephritis. Splitting the capsule I consider a dangerous procedure, as well as useless, because in chronic nephritis the capsule would be relaxed. In acute nephritis the capsule is tense because of the swelling. In such cases puncture of the capsule would possibly relieve the pain of which some of these patients complain. The prognosis is so good in the acute cases that they either recover spontaneously, or at least with care and good management, and serious operative procedure is unnecessary. We must not forget that the cortex of the kidney is to a certain degree nourished by the vessels derived from the capsule, and when we deprive them of their blood-supply we bring about resulting alteration of tissue. While Dr. Ferguson's paper was interesting, still the bulk of the cases do not apply to nephritis at all, and the latter cases which were demonstrated to be nephritis have not recovered from their nephritis, but have been relieved of a purely subjective symptom.

Dr. ALEXANDER HUGH FERGUSON—With reference to the etiology of nephritis, history is replete with instances of the disease following unsuccessful operations, not only on the urinary tract, but on the fingers and toes. I do not claim that all cases I mentioned from the literature of the subject were cases of nephritis. I gave it as my opinion that very likely they were nephritis and not nephralgia, as given by the authors who operated on those cases.

With regard to tension, every inflamed organ has tension. Every inflamed organ that has a capsule like the kidney must have intracapsular tension, and there is an indication in these days to relieve tension on those general surgical principles that apply to other parts of the body. Puncture would relieve the inflammatory exudates over the inflamed kidney or organ. The condition first begins with vascular changes, with the determination of blood to the part, and this may continue as a subacute condition. We may have an effusion of serum or blood beneath the capsule, and why not relieve it?

With reference to the slight nutrition the capsule affords to the cortical substance of the kidney, while that is true in the normal kidney, it is readily cut off by inflammatory changes in acute cases, and I doubt whether in any of the chronic inflammations of the kidneys we find any nutrition whatever coming from the capsule to the cortex of the kidney. In fact, to remove the cicatricial capsule would be only to relieve the kidney and to give more determination of blood to it from within, and also allow healthy surrounding structures to come in contact with it.

The only two cases which I positively stated were instances of nephritis are those which I gave *in extenso*, and furnished you absolute proofs.

Much might also be said with regard to chronic cysts of the kidney, and the probable benefits to be derived by exploration and puncture of the cysts. It is not necessary to give general anesthesia in many of these cases. I have explored and drained kidneys by the aid of local anesthesia. The lumbar route to these organs is safe, and no important structures are met with that need debar us from carrying out surgical treatment, when indicated, in Bright's disease.

Practical Notes.

Ointment for Hemorrhoids.—The *Gaz. degli Osp.* of February 7 publishes Kossobudski's formula as follows: chrysarobin .8 gm.; iodoform .3 gm., extract of belladonna .6 gm., vaselin 25 gm.

Mercurial Syrup for Syphilis.—The favorite prescription at the Paris Saint-Louis for the tertiary manifestations of syphilis, and also the cutaneous and organic, is called "mixed syrup," and contains one centigram biniodid of mercury and a gram of potassium iodid to the tablespoon. Formula: Hydrargyrum di-iodatum .1 gm., potassium iodid 10 gm., simple syrup 200 gm.

Lamp-Shade For Nose and Throat Work.—An excellent shade to be placed over a straight lamp-chimney may be made of Russia glazed tin with an aperture about its center. The aperture should be of a slightly oval shape two inches long and an inch wide. This shade, when placed around a Welsbach light, produces an intense and excellent light for nose and throat work.

Purulent Pericarditis.—Ljunggren reports a case of purulent inflammation of the pericardium cured with incision and drainage. Puncture and drainage he considers dangerous and ineffective. An opening must be made large enough to remove the mass of fibrin, and in such a place as to favor the drainage of even the posterior portion of the pericardium. The after-treatment is of great importanee, as the pus and fibrin must be entirely evacuated to enable the pericardium to contract, and without the formation of fibrous connective tissue.—*Nord. Med. Ark.*, ix, 6.

Yellow Oxid of Mercury Salve.—This salve is decomposed not only by the light, but also by the action of the fatty acids developed as the fats become rancid. Schanz therefore recommends the following formula to avoid decomposition: Yellow oxid of mercury, recently prepared, .01 to .05 gm., lanolin and aq. dest., āā 2 gms; vaselin, q.s. for 10 gm. Sig. In black glass.—*Nouveaux Remèdes*, 1899, No. 2.

Absorbing Capacity of Children.—W. Jakubowitsch states that absorption by the gastric mucosa is much diminished immediately after lavage of the stomach. Elevated temperatures reduce the absorbing capacity of the stomach and rectum. Absorption by rectum is slowest in the infant and most rapid between 2 and 4 years of age. Aqueous solutions of potassium iodid are not absorbed by the normal skin.—*Med. Obos.*, 1899, No. 1.

Antisepsis of Lungs Via Rectum.—Bouteron disinfects the lungs by means of rectal injections administered the last thing at night, after a cleansing injection of boiled water. His formulæ are: 1. Creosote v to xx gtt., yelk of egg 1 gm., olive-oil 60 to 100 gm. 2. Crystallized guaiacol dissolved at a gentle heat, .2 to 1 gm,; oil, 50 gm. A suppository can be used instead of an injection, if preferred. 3. Creosote .3 to .5 gm., cocoa-butter 4 gm. For one suppository. Two a day. Or 4. Guaiacol .2 to .5 gm., cocoa-butter 4 gm.—*Presse Méd.*, February 15.

Infective Diseases in Uremia.—C. Girardeau calls attention to the deceptive course of an infective disease in an uremic subject. The subnormal temperature constant in uremia gives way to more or less fever, chills and other manifestations of disturbance, followed suddenly by grave uremic accidents, coma, convulsions, delirium, etc. If the subject dies the trouble is attributed to his uremia, but if he recovers from these accidents, it will be found that some infective disease is running its course, and that the onset disturbed the balance of the uremia, sufficiently under control in ordinary circumstances. If the fever was present before the commencement of the uremic accidents or persists after them, it is almost certain that the renal lesion has nothing to do with it, but that it may be caused by indigestion, grippe, or a more serious infection.—*Presse Méd.*, February 18.

Hydrastis Canadensis in Tuberculous Hemoptysis.—Gabrilowisch observes that acute fatal hemoptysis in chronic pulmonary tuberculosis is rare; generally there are small capillary hemorrhages appearing for four or five days and then arrested, sometimes three to nine the first day and less afterward. The amount of blood lost may surpass that of an acute fatal hemorrhage, but the patient may not be sensibly affected by them. He recommends in these cases the prolonged administration of extract of hydrastis canadensis: thirty drops three times a day for the first two weeks; thirty drops twice a day during the third week; the fifth and sixth week, thirty drops two or three times a week. Hemoptysis is more frequent during the spring and fall.—*Rev. Gen. de Path. Int.*, February 5. We note a case of intoxication from two doses of twenty drops each, of fluid extract of hydrastis canadensis, causing edema of the lung in adults.

Treatment of Habitual Constipation.—E. Doumer reports a large number of convincing observations that proclaim the great value of static electric treatment in habitual constipation from whatever cause, except consecutive to severe mucomembranous enterocolitis. The stools become spontaneous and return to normal after three or four applications, if not sooner, and when improvement commences, it continues until a complete and permanent cure. Three séances a week are usually sufficient; the rapidity of the results depends upon the strength of the current, although in most of the observations a machine emitting three or four 12-centimeter sparks a second was used. The electric discharge is directed against the iliac fossæ, the shirt and flannel interposed, or if sparks are used, a still thicker garment. Doumer attributes the effect to a special influencing of the secretions of the intestines.—*Bull. of French Society of Electrotherapy*, January.

Early Differentiation of Progressive Paralysis.—E. Schwarz states, in a communication in the *St. Petersburg Med. Woch.* of February 4, that the pupils afford valuable information in the differentiation of this disease, as he has had occasion to note in fifty personal cases and the published accounts of other cases. Dementia paralytica is present in 92 per cent. of the cases of mental disease in which there is no reflex reaction to light on the part of the pupils. There is no reaction to the light, or very slight reaction, in 70 per cent. of the cases of dementia paralytica. This condition is characteristic of progressive paralysis, and may exist for years before other symptoms develop.

Albumose and Peptone Preparations.—These preparations are assumed to be very nourishing, readily assimilated while the digestive apparatus rests, and are usually ordered by the physician and taken voluntarily by the laity with this end in view. But F. Voit of Munich has established that these assumptions are erroneous. The gain in weight frequently observed when ten or fifteen grams of somatose, for instance, are taken daily is due to the increased appetite it arouses, and this is produced by the directly stimulating effect of these preparations on the gastric and intestinal secretions and peristalsis, which they exaggerate. They are in fact, *medicines:* stomachics and purgatives, with a slight nutritive value.—*Munich Med. Woch.*, February 7.

Extirpatio Recti Abdomino-Vaginalis.—C. Schwarz of Agram-Croatia, recently operated on a cancer of the rectum that had broken through into the vagina and spread to neighboring glands, by opening the abdomen, making an artificial anus according to Frank's method of gastrostomy, and detaching the flexure with the corresponding mesentery and included glands, then opening Douglas' sac and extirpating the rectum through the vagina according to Rehn. The thoroughness, simplicity and rapid recovery commend this operation, which he considers indicated in all cases of rectal cancer in women, in which infiltrated glands can be palpated, or when the cancer is located very high with adherences and extends to the fornix vag.—*Cbl. f. Chir.*, February 4.

Testing Permeability of Kidneys with Methylene Blue.—After verifying the blue with the spectroscope (much diluted, black band in the red), and adding it to sterilized water, inject a Pravaz syringe of the solution (.05 grams blue to twenty parts water fills the syringe) deep into a muscle. The subject should urinate at the time of the injection, then in a separate, labeled glass, every fifteen minutes the first hour, every half hour till the third hour, then every two hours, or four or five at night, continuing for a week or so until all trace of the blue has vanished. In a normal subject the blue appears in half an hour, but very faint, rather greenish. It reaches its greatest intensity toward the third or fourth hour, remaining the same for several hours, then gradually diminishing and disappearing in forty hours. Sometimes the blue is eliminated as a colorless compound, but the color can be restored by adding a drop of acetic acid and boiling the urine in a test-tube. If the blue is tardy in making its appearance, or is in the colorless form, a slight degree of impermeability is indicated, such as might be expected in a tuberculous or typhoid subject. Delay in the appearance of the blue indicates impermeability of the kidneys, such as accompanies interstitial nephritis or senile shrunken kidney. The elimination is usually very protracted in this case. Abnormally prompt and brief period of elimination indicates a parenchymatous lesion: "In interstitial nephritis the renal filter is stopped up; in parenchymatous nephritis it is full of holes." Intermittent elimination is rather an evidence of a hepatic lesion, observed by Chauffard in infective icterus. The elimination is approximately normal with cardiac affections.—*Presse Méd.*, January 25.

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SATURDAY, MARCH 25, 1899.

ORIGIN OF PIGMENT IN SKIN, AND THE NATURE OF CERTAIN PIGMENTED TUMORS ARISING IN THE SKIN.

Some years ago KARG transplanted skin from the negro to the white man, and vice versa. In both cases the grafts "took," and after a while the black skin lost its pigment and the white skin became black. The deepest layers of the epidermis contain peculiar spider-like branching cells full of pigment, and called "chromatophores." Similar cells also occur in the cutis. KARG believed, as is commonly taught, that these chromatophores are fibroblasts emigrating from connective tissue to the epithelium of the skin, where they deposit their pigment. When black pigment becomes white a reverse process is assumed to take place. Recently LOEB[1] of Chicago made some experiments with the skin of the guinea-pig, replacing black skin with white and white with black, and it was found that white grafts would not adhere indefinitely when placed upon colored skin, whereas black grafts invariably took well. These results LOEB found to be so uniform that they could not be attributed to failures in technic. CARNOT obtained the same results. These experiments throw considerable light on the origin of skin pigment, at least as regards the guinea-pig—a subject of theoretic as well as practical bearing.

As already indicated, it is now generally taught that pigmentation of the cutaneous epithelium is due to the action of chomatophorous fibroblasts, which are supposed to carry pigment derived from the hemoglobin to the epithelium. It has not been believed that pigment in the skin originates in the metabolism of epithelial cells. In the guinea-pig, for instance, white and pigmented epithelial cells live on the same tissue and under the same general conditions, yet one produces pigment and the other does not, a fact which would indicate that the pigment must come from the metabolism of the epithelial cells themselves. This statement is also strongly supported by the fact that white epithelium transplanted to cutaneous tissue previously supporting black epithelium does not seem to develop pigment; when black skin is placed upon a defect in white skin it remains black, according to LOEB's results, even though the upper layers of the graft are constantly thrown off, thus requiring the production of new pigment. After a while the connective tissue between the pigmented grafts is found to contain pigmented granules, which previously did not occur in the tissue and which must therefore be accounted for as due in some way to the presence of the pigmented grafts.

As is also known, the pigment of the epithelial cells of the skin is not evenly scattered throughout the protoplasm of the cell, but is found mostly on the side of the nucleus which is nearest the surface. In guinea-pigs the glands around the hair follicles are not pigmented; if the pigment is brought by chromatophorous mesoblastic cells, it would be rather strange if these cells should not also distribute pigment among the glandular epithelial cells. It seems, therefore, that a more probable explanation of the origin of pigment in the skin is, that chemic processes in the deeper layers of the epithelium lead to the formation of pigment, and that there is an essential difference in the structure and functions of white and pigmented epithelium.

These observations become of direct importance in the consideration of malignant growths arising from pigmented moles, concerning the carcinomatous or sarcomatous nature of which the opinion of pathologists and dermatologists diverge. It had long been regarded as settled, that pigmented tumors arising in moles were sarcomatous; in 1892 UNNA came to the conclusion that the pigmented cells of the corium, which form the characteristic elements in the moles, are derived from the rete layer of the epidermis and not from connective-tissue cells. This conclusion was based mainly upon the study of moles in early life. Since the publication of UNNA's researches, divergent opinions have been expressed in regard to his conclusions.

GILCHRIST[2] recently reported two cases of pigmented cutaneous tumors, together with the results of some study of the pigmented moles. The second case described is of particular interest in connection with the subject under discussion. The tumor began in a pigmented mole on the face of a young physician, and was excised at an early stage in its growth. Microscopic examination left no doubt whatsoever as

1 Medicine, March, 1899.

2 Journal of Cutaneous and Genito-Urinary Disease, March, 1899.

to the malignancy and nature of the growth, it being unquestionably a melanosarcoma. A small pigmented mole, excised from the skin of the abdomen of a child 21 months old, established conclusively on microscopic examination that the groups of epithelioid cells which went to make up the structure of the mole were originally derived from the epidermis by detachment of collections of epithelial cells and by the separation of the lower portions of the interpapillary processes. GILCHRIST'S present investigations go to confirm UNNA'S views. It is self-evident that if the epithelioid cells which constitute moles are of epidermal origin, malignant growths springing from these cells would have to be regarded as being carcinomatous and not sarcomatous in nature, according to the present classification and nomenclature of tumors.

GLONOINISM.

While we are all more or less acquainted with the effects of nitroglycerin when introduced into the system in medicinal doses, we are perhaps not so familiar with the peculiar conditions it produces when absorption takes place by inhalation and through the skin in doses the size of which we have no means of ascertaining, but which may be enormous. Observations, therefore, of a class of patients of this kind, carefully made, and covering a considerable period of time, can not fail to prove interesting. In "International Clinics" for January (vide also JOURNAL, Oct. 1898, p. 793), Dr. GEO. C. LAWS has reported a number of cases of intoxication by this agent, to which condition he has given the name "glonoinism." His experience was obtained among the workers in a nitroglycerin factory during the past twenty years, where many of the employes are compelled to handle thousands of pounds of nitroglycerin a day, and the hands and arms as far as the elbows are covered with it, frequently for hours at a time. Naturally, absorption through the integument, or, as is now believed, some volatilization and absorption through the lungs, occurs. In either case the result is the same: the drug exerts its action upon the arterial system through a paralyzing action upon the vasomotor system. The left ventricle dilates as well as the blood-vessels themselves. Consequently the pulse is soft and compressible, though usually full, and is somewhat accelerated. Palpitation of the heart is common, and with it a corresponding throbbing of the arteries, which latter being most appreciated in the vessels of the brain gives rise to a severe throbbing occipital headache to which the name "powder headache" has been given. The dilatation of the arteries results in a marked reddening of the entire body surface, though with an increased poisoning, some failure of circulation ensues and cyanosis more or less profound succeeds. Among others of the initial symptoms may be mentioned nausea and vomiting, diarrhea, more or less prostration with great languor, and eruptions of various kinds. After the lapse of a week or ten days, a sort of immunity, as far as the "powder headache" is concerned, is acquired by the new man; but as the drug is thrown off very soon after absorption, the immunity is by no means lasting, and a few days' absence from work is sufficient to destroy it entirely. Indeed, some of these men suffer from the "powder headache" every Monday morning. These symptoms, which might be called acute, are unfortunately not confined to those actually engaged in the work. The wives and children, friends, and even medical attendants suffer. The wives, if they attend to the laundry, are usually attacked every wash-day, and ironing is particularly liable to precipitate an attack on account of inhaling steam from the clothes. In time these women may acquire a comparative immunity, but still they usually suffer to some extent when ironing. Dr. LAWS states that he himself, as well as his colleagues, has frequently had attacks of the headache, even after a short physical examination of the chest. Among the children, especially the younger ones, several deaths have undoubtedly been due to their having slept with their parents and inhaled the exhalations from their bodies.

Following the acute trouble, by a greater or less period of time, a chronic condition of dilatation of the heart and of the entire arterial tree supervenes. This varies much in degree, depending upon the amount of the substance handled each day, the length of time exposed, and the individual resisting power; but it is present to some extent in all. The symptoms vary with the degree of dilatation; in mild cases an accentuated first sound with diffuse apex-beat is present; then arthymia, palpitation, shortness of breath on slight exertion; finally, incompetency of the valves with regurgitation of the blood, as indicated by murmurs over the various valvular seats. With this condition, there may be any of the accompanying symptoms of impaired cardiac action. As far as the nervous system is concerned, there is usually a certain amount of mental hebetude, and especially is this the case during the working hours. A peculiar feature is the action of alcohol upon the victims of glonoinism, a small drink of whisky often bringing on the symptoms of the primary attack of which we have spoken. The women are also subject to chronic glonoinism, and while the same course may be followed as in the case of their husbands, as a rule the symptoms are not so severe. With them, however, exophthalmic goiter is by no means uncommon; and menorrhagia and metrorrhagia, miscarriages, premature births and comparative sterility are all more common than among their sisters not influenced by these peculiar conditions. The children of these people are far from strong, as compared with the other children of the neighborhood, and are able to offer but little resistance to the onslaughts of disease, particularly infectious diseases and catarrhs.

Of still more practical importance is the question: What effect, if any, have the fumes arising from the combustion of nitroglycerin and its compounds upon the individuals in the immediate neighborhood? It is well known that nitroglycerin when detonated produces the same symptoms that we have described as occurring among the workers in the explosive, hence the objection to using dynamite in mines. Hunters using smokeless powder are also occasionally the victims of the same symptoms. It is known that the smokeless powder used by the Spanish troops contained a large amount of nitroglycerin. From all this is it possible that one of the causes of the surrender in Cuba, which General TORAL "could not speak about," was the incapacitation of his army by the undecomposed nitroglycerin in the atmosphere? At any rate, this subject is deserving of some attention by the War Department; and if a nitroglycerin smokeless powder causes a high sick-rate during an engagement, it is far better to use the old powder, even if it does "show the enemy where to shoot," a matter for which our Government was severely censured during the late war. What if the Spaniards did know the location of their enemies, if they were so disabled by their own powder as to be unable to use their weapons?

MEDICAL CRITICISMS OF THE LATE WAR.

The JOURNAL has hitherto refrained from noticing to any extent the various medical criticisms of the conduct of the late War with Spain, for what seemed the good and sufficient reason that from the great mass of accusatory evidence, much of it semihysteric in character, and other portions with a more or less pronounced political or personal tincture, it was not advisable to take sides or express positive opinions. It has, however, on more than one occasion, taken pains to put forward the view that the war was necessarily entered upon without due preparation and that much allowance should therefore be made for errors and deficiencies. As regards the medical history of the war, including under this head whatever affected the health of the army, whether it came under the direction of the medical department or not, this is especially true. The mistakes and serious blunders that were made can be almost invariably traced back to the unprepared condition in which we entered into hostilities. The public that enthusiastically demanded war with Spain was one that knew nothing of what war really is; the volunteers who offered their services so freely had no idea of the realities they were to encounter; the army bureaus, inadequate as they were, were largely manned by men who had grown up in the traditions of thirty odd years of peaceful red-tapeism, their reinforcement to meet the emergency was necessarily with inexperienced men, and to crown the whole, the actual military operations, except those in the Philippines, were crowded into a brief space of time and carried out under the most trying climatic and other conditions. Even the medical department, which was, as a scientific organization, less bound down by precedents and traditions than some others, was compelled to accept the services of a large number of men who had almost everything to learn in regard to the special problems of military sanitation and were absolutely ignorant of the details of their administrative duties as army surgeons. The difficulties were the greater from the recklessness of the green volunteers and the ignorance of their officers, to whom even any idea of sanitary discipline was too often absolutely unknown or at least ignored. Indeed, trained soldiers also erred to some extent, and owing to the fact that we had hardly any traditions of tropic warfare and no time for the adjustment of routine conditions to meet the new and unforeseen emergencies that arose, and that we had to carry on a campaign in a most unhealthy season and under most unfavorable conditions, there resulted a vast amount of sickness and suffering, much of which, as it is easy to make appear at this date, ought to have been avoided. It is always easier to criticise the past than to avoid the possibility of criticism of the future, and, taking all things into consideration, and allowing that avoidable mistakes and worse than mistakes have been committed, the country may be congratulated that matters were not worse, as well as commiserated that they were as bad as they have been shown to be.

The JOURNAL does not express any opinion upon the questions still under investigation; the time for that has not arrived. They are, however, only details that need not prevent us from taking a general view of the war as a whole. As regards the strictly medical aspects there is in this purview less reason for disadvantageous comparisons with other military operations than the lay press and the public seem to imagine. The French operations in Madagascar made a worse record of disease and mortality, and even the much-belauded Soudan expedition, so regarded as a model in these respects, could have furnished ample opportunity for the attacks of the "yellow" journalism of to-day, did it exist in Great Britain. In fact, the actual record of the medical department in the active operations and occupation of Cuba and Porto Rico, to say nothing of the Philippines, is a brilliant one when we take into account the conditions there existing.

TREATMENT OF EPIDEMIC CEREBROSPINAL MENINGITIS WITH ANTISTREPTOCOCCIC SERUM.

Inflammation of the meninges of the brain and the cord may arise from a multiplicity of causes, and as a primary disorder or secondary to other disease, general or local. It may result also from traumatism. It has been observed in connection with a number of acute infectious processes, and it has developed through extension of adjacent disease, as from the

nose and the ear. It is occasionally found as a terminal process in fatal cases of nephritis, arteriosclerosis, heart disease and gout.

The micro-organisms most commonly related etiologically with cerebrospinal meningitis are the meningococcus, the pneumococcus, the tubercle bacillus and the streptococcus, although others also are found at times. The first named is now generally considered responsible for the epidemic variety of the disease, so-called cerebrospinal fever. The differentiation clinically of these several forms depends essentially, when it can be made, upon the attendant circumstances, the knowledge of epidemic distribution or of the existence of primary disease. A study of the fluid obtained by puncture of the spinal membranes in the lumbar region may yield conclusive evidence. The prognosis of the meningococcus variety is said to be less unfavorable than that of the others.

In the way of treatment we are without specific remedial measure, and the data are insufficient to justify an expression of opinion as to the utility of serotherapy in this connection. The intelligent and conservative use of antitoxins would seem perfectly legitimate, although their efficacy in the treatment of such diseases as pneumonia, typhoid fever and tuberculosis in human beings has not been sufficiently demonstrated, and the reports concerning antistreptococcus serum are as yet too divergent. McNABB (*N. Y. Med. Jour.*, Feb. 25, 1899, p. 262) reports two cases in which the diagnosis of cerebrospinal meningitis was made and injections of ten cubic centimeters of antistreptococcic serum were given, in one with a successful and in the other with a fatal issue. The evidence as to the correctness of the diagnosis is not conclusive, but improvement seemed to follow the injections, although it was not maintained in one case. While we are not in a position to state that antistreptococcic serum may not be useful in cases of diplococcus meningitis, it seems more reasonable to expect any good effect of which it were capable to be exerted especially in cases of streptococcus meningitis. McNABB views the action of the serum as a stimulating one upon the nerve-centers, and comparable to that which may result from the use of warm saline infusions. He thinks it may increase phagocytosis and in this way exercise an antidotal effect on the meningococcus; and that it may, further, prevent purulent infection of the exudate.

RATES FOR THE COLUMBUS MEETING.

As we go to press we learn that the Central Passenger Association has made a rate of one fare for the round trip for the Columbus meeting. If this is true, the other associations will probably do as well, although thus far the best they offer is a one and one-third rate. As those in charge of this matter are diligently at work we may confidently hope for a flat half rate. If this can be secured, we may expect to see the next meeting of the AMERICAN MEDICAL ASSOCIATION the largest ever held, not excepting that at Philadelphia two years ago. As it is, the outlook for a most successful gathering is very promising, and the profession in Columbus, assisted by that of the whole State of Ohio, is hard at work to make this the best meeting ever held. While the semicentennial anniversary was held two years ago, this will be the fiftieth annual meeting, and the occasion deserves the large attendance which is looked for by those in a position to judge.

CEREBROSPINAL MENINGITIS.

Dr F. W. REILLY, assistant commissioner of health, Chicago, has courteously furnished us, for advance publication, the report on "Epidemic Cerebrospinal Meningitis in Chicago," by Dr. W. J. CLASS, the first instalment of which appears in this number of the JOURNAL. This report, through an abstract which appeared in the monthly bulletin issued by the health department, several months ago, has caused widespread comment in this country and abroad. Cerebrospinal meningitis has been, and is, quite prevalent throughout the country and the thorough discussion of the subject here given is timely and important.

REGISTRATION OF BIRTHS.

The secretary of the Illinois State Board of Health is preparing to enforce the registration of births and deaths and may ask the legislature to fix a fine of at least $10 for each neglect on the part of the attending physician. As regards death reports, there should be no need of such a law, as no burial permit should be permitted without such certificate or a coroner's verdict, but it is an injustice to require physicians to even expend postage in reporting births without compensation. In the one case the State can look to the well-remunerated undertaker for the report, in the other it will often be only an additional burden in charity cases, and the rule will not reach the many cases unattended by either physicians or qualified midwives. It would be better and more effective for a thorough registration to have a small compensation made for each report of a birth, as is the practice in some other States.

NEW CONCEPTION OF SMALLPOX.

A new conception of smallpox has recently been evolved from the expansive intellect of an imaginative Frenchman. In brief, this genius holds JENNER up to obloquy and opprobrium for his discovery of vaccination and its protective influence against smallpox, which he considers "a spontaneous eruption of nature —which violently rejects, expels and deposits outside the evil influences that are in the body." The signs of croup, typhoid fever and pulmonary tuberculosis are looked upon as merely manifestations of smallpox turned inward; carcinoma and meningitis own a like etiology, and insanity and suicide are traceable to the same morbid influences. In commenting upon these

ebullitions of a mind unhampered by scientific considerations the *British Medical Journal* suggests "that the mere possibility of such dire consequences from the 'turning inward' of smallpox afforded some justification for an attempt to keep it out altogether."

PERILS OF SANITATION.

The recent occurrences in Colorado and Texas illustrate the possible dangers of sanitation attempts with unenlightened individuals. A health officer was ordered to prevent a public funeral of a person who had died of a contagious disease, and he was killed in the performance of his duty. As the Chicago *Post* says, editorially: "He was a victim of the idea that health laws are made for the purpose of distressing those who already are sufficiently distressed." There is, with all our boasted enlightenment, a large amount of barbaric ignorance in this country, not only among the recently imported elements, but also amongst those who should know better. As the *Post* says, there is a feeling apparently existing in some degree among persons esteemed and esteeming themselves educated and intelligent, that the laws relating to contagious and infectious diseases are made to be ignored. If this is not a sign of what we have charitably called it, barbaric ignorance, it is something worse, it means a reckless indifference to law and to human life.

EUPHORIA VS. EUTHANASIA.

The following from the London *Lancet* (Feb. 18, 1899, p. 489) is here presented as an example of unfortunate medical timidity and of how a thing ought not to be done.

To the Editors of the Lancet, Sirs:—Within a few weeks I have had under my care a case of carcinoma uteri extending to the bladder and adjacent parts. The pain accompanying the disease in its later stages was severe and only controlled by strong suppositories of morphia, and the patient's death struggle was an awful and most pitiable experience, lasting certainly three or four days. I tried liquor opii sedativus 10 minims every two hours, but only two or three doses could be swallowed. I seek in this letter information from my confrères on the treatment one should adopt in such cases—e.g., would it be justifiable to use morphia hypodermically? or to what extent would the inhalation of chloroform be admissible in mitigation of so great agony and distress? I am, Sirs, yours faithfully,

EUTHANASIA.

The hyperconscientious (that is the kindest term we can use) physician who wrote the above apparently did not recognize the difference between helping the patient to an easy death and prolonging life by relief of exhausting pain. It is unfortunate, at least, if the teachings of the British medical schools are not definite enough on this point to enable their graduates to at once decide such questions rationally and humanely in these emergencies. The *Lancet*, however, editorially discusses the case without special condemnation (Feb. 25, 1899, p. 532), and leaves the impression that such hesitancy as above indicated is a natural and frequent occurrence. If such is the case, it hardly speaks well for the profession. The question of giving an overdose is not raised, except it may be in the use of the term "euthanasia," that might, perhaps, imply it. It is one that need never occur to the physician's mind; the case is one of giving comfort and ease, not of interfering with or lessening vital powers. Euthanasia is at best an ambiguous word; while it may mean only rendering certain death painless, it is liable to another construction. Euphoria, meaning ability to endure pain, as well as comfort and sense of well being, is a better term.

END OF THE SCHLATTER CASE OF GASTRIC EXTIRPATION.

The famous SCHLATTER case of ablation of the stomach, the first in which the entire organ was removed, with the survival of the patient, has at last completed its history—the finale is reported by Dr. SCHLATTER in the *N. Y. Med. Record* of March 18. The woman died on October 29; about 14 months after the operation, the cause of the death being metastasis of the original disease involving the mesenteric, retroperitoneal, bronchial and supraclavicular glands with studding of the pulmonary pleura with carcinomatous nodules. Whether the mutilation the patient had undergone diminished her resistance to the morbid process, indirectly or otherwise, can only be conjectured; the account furnishes no evidence on that point. The additional interest given the case by the autopsy is evident. There was clearly no attempt of nature to form a substitute for the stomach by cardiac or duodenal dilatation, and the continuance of life for over a year, and even the improved nutrition during part of the time, with complete absence of what we have been inclined to consider the essential organ of digestion, the stomach, may be said to be a proven possibility. It will be next in order to find a case justifying the removal for other cause than malignant recurring disease, so that a larger element of time can be contributed to the question whether gastric digestion is an indispensable mechanic factor or not. The case shows that a person can exist for more than a year without a stomach, and possibly indefinitely, and that its removal in a case of last resort is a justifiable operation.

Medical News.

THE BALTIMORE MEDICAL COLLEGE has appropriated $3500 toward building a gymnasium for its use.

AN INTERNATIONAL CONGRESS of medical ethics is being organized to follow the Congress of Medicine at Paris in 1900.

GOVERNOR ROOSEVELT is reported to have signed an amendment to the New York civil code, which prohibits a physician from divulging any information concerning a patient, either before or after death.

AT THE HOSPITAL FOR THE INSANE, Kankakee, Ill., the medical force has been reduced from thirteen to ten physicians, the three retiring being non-residents of the State.

DR. IRWIN SCHUELLER, Columbus, Ohio, has been appointed health officer to succeed his father, the late Dr. J. B. Schueller. He has for several years been studying sanitary science in Europe.

THE PARIS ACADEMY OF MEDICINE has elected Lord Lister and Robert Koch foreign associate members, the first time foreigners have been thus appointed who were not already connected with the academy as correspondent.

CASES OF bubonic plague are officially announced at Djeddah and other points along the Red Sea. This may lead to the prohibition of the pilgrimage to Mecca, especially as the disease is still raging in a large portion of British India.

IT IS PERHAPS not generally known that Professor Kanthack the late distinguished professor of pathology at the University of Cambridge, England, was a Brazilian. He was born in Bahia in 1863, and was, therefore, still a young man at the time of his lamented death.

DR. JOHN GUITÉRAS of Philadelphia, will sail for Europe about May 28, for the purpose of making a special investigation of tropic diseases before returning to his native soil, Cuba. He will first go to Vienna and later to other medical centers of Europe, and expects to be absent about a year.

DR. REGINALD H. SAYRE, at the Sportsman's Show in New York City, recently won one of the leading prizes in the revolver contests, thus adding another to his numerous trophies. Dr. Sayre has for some time been inspector of carbine and pistol practice in cavalry squadron A of the State militia.

IN ATTEMPTING to carry out instructions of the State board of health to isolate smallpox cases among Mexican residents at Laredo, Texas, a riot occurred on the 20th of this month, two of the natives being killed. A detachment of United States troops quelled the disturbance and protected the officers in enforcing the sanitary law.

SURGEON-GENERAL VANREYPEN, U. S. N., has gone to San Francisco to inspect the construction of the new naval hospital at Mare Island. An appropriation of $100,000 was recently made for the construction of a naval hospital at that place. The surgeon-general will be absent about a month, and during his absence Surgeon John C. Boyd will act as chief of the Bureau of Naval Medicine and Surgery, at Washington, D. C.

THE COMMITTEE of citizens of Philadelphia appointed to select a fitting memorial commemorative of the esteem in which the late Dr. William Pepper was held, have decided to erect a statue of the Doctor in bronze. The cost will be about $15,000, and the statue will be placed in the city hall plaza, one of the most favorable sites that could have been chosen.

DR. A. J. C. SKENE, president of the Long Island College Hospital, Brooklyn, has been invited to take the presidency of a new institution to be known as the Hospital for Breadwinners. It is designed for the benefit of self-supporting women, and nearly $300,000, it is said, has been subscribed to put up and equip a suitable building.

DR. SPENCER MORRIS, who has for a long time held the chair of professor of medical jurisprudence in the Medico-Chirurgical College, Philadelphia, was stricken with apoplexy a few moments before he was to deliver his farewell address to the graduating class of students, March 13. The latest accounts state that the Doctor has partially regained the use of the leg and arm and his condition has otherwise improved.

THE CHIEF of the War Department in England informed a parliamentary committee that there is no question of equipping the army with bullets such as have been used in the latest English campaigns. For humanitarian reasons the military authorities have no intention of substituting bullets with uncovered or hollow points which produce frightful mutilations at short range. The Disarmament Conference might possibly be justified in interfering, he added, if such a procedure were contemplated.

ONE OF Philadelphia's newspapers, in speaking of the muddy water furnished to some parts of that city, complains that the supply is besides inadequate, contending that "if councils will insist on our using the unclarified Schuylkill, they should at least see that we get enough of it." Not at all; that would be but an aggravation of the crime. The city, no doubt, finds its health-bill and its death-bill from contaminated water already too high and considers it the part of wisdom to deliver the concentrated filth that goes by the name of water in minimum rather than maximum doses.

AT THE American Psychological Association meeting December last (reported in *Science*, February 10), Dr. E. W. Scripture of Yale University reported some interesting experiments with passing alternating electric currents of high frequency through the human body, producing practical anesthesia and analgesia to touch and cold, though apparently not to heat. He suggested a possible value of this fact for surgical analgesia. As a psychologist it is to be inferred that Dr. Scripture was able to eliminate sources of error from suggestion, etc., in his experiments, and there may be a possible surgical utility, as he points out.

DR. NELSON J. HENRY, now a member of the N.Y. Assembly, recently introduced in the Legislature a bill providing for the organization of a State school of public health under the auspices of the University of the City of New York, and appropriating the sum of $25,000 for its establishment, and a like amount for its maintenance for the year beginning Oct. 1, 1899. The bill has been favorably reported with an amendment by the Ways and Means Committee stipulating that the school thus incorporated shall furnish free instruction in sanitation to properly accredited members of boards of health of towns and villages, and also authorizing the school to conduct examinations regarding the purity of the water-supplies of the State.

THE BOARD OF HEALTH of the State of Rhode Island has drafted a bill which it is endeavoring to get through the legislature, forbidding the practice of so-called Christian Science. One of the pleas made for the bill is the fact that, with their peculiar views and practices, Christian Scientists are public dangers, especially in times of epidemic disease. This is a truth that ought to be widely published. The danger from the sect is not in the occasional passive manslaughter in which they indulge, but in the actual every-day risk to their fellow-beings. One zealous Christian Scientist can undo the work of many efficient health police, provided he has the liberty to carry out his religious medical vagaries to their logic results. It is certainly in the interest of public health that some restriction should be placed upon them, that they should be compelled to at least respect sanitary regulations, regardless of their peculiar views.

Correspondence.

Medical Progress in the State of Wyoming.

ROCK SPRINGS, WYO., March 1, 1899.

To the Editor:—Although Wyoming is one of the youngest States in the Union, and geographically is located on the very backbone of the continent, yet, considered from a medical standpoint, her position in medical science is also high, and may well be compared in some respects to her position and elevation above sea level. As early as 1876, long before the Territory of Wyoming was dreaming of the question of Statehood, its territorial legislatures passed medical laws, which were superior to many of its senior commonwealths in the Union at that time. While it did not provide for a medical board, and the law was lenient in some of its features, yet, at the same time, it practically provided that no one should practice medicine in the Territory of Wyoming, who had not obtained a diploma and registered the same with the county clerk, under oath, that the same was *his* diploma and not that of some one else.

The laws passed at that time were codified in 1887, and after our Territory was admitted to Statehood, they were made a part of the medical laws of this new commonwealth, until the meeting of the fifth legislature, which has just closed its session, when a new bill was presented and in a few days enacted into a law. Among other medical statutes, of which this State may be well proud, and in fact covering a point for which few others have provided, is one that "Any physician or surgeon who may be called upon to testify as an expert, shall be entitled to a fee of $5.00 for half a day or less, and for more than a half day $10.00, and when called upon to make a postmortem shall be entitled to a fee of $30, provided the postmortem is actually made."

It will be seen by these extracts that the citizens of this so-called "wild and wooly west" Territory have for more than twenty years protected themselves by protecting the medical profession of the Territory, and more recently of the State, and while other States had no provision worth mentioning for this protection, this Territory was far in advance by having fairly, and in some respects exceedingly, good laws for its protection.

The rapid advancement of the State in industries of various kinds, in population and in wealth, indicated to the medical profession that it was its duty to organize a State medical society, which took place at Rawlins, Wyo., May 13, 1898, when a constitution and by-laws were adopted, which put the medical profession of Wyoming on an equal footing with that of any other State in the Union in this regard. Among other things provided for in this constitution was a committee on legislation whose duty it was to look after the medical legislation of the State and provide, if possible, such needed measures as would have a tendency to advance the medical and surgical profession of our commonwealth. On Nov. 1, 1898, the second meeting of the Wyoming State Medical Society was held and a more thorough organization completed. The writer had the honor to be elected president at the first meeting and re-elected to the same position at the second. The matter of legislation was taken up, and a committee of three was elected by the society, consisting of the president, ex-officio, Dr. C. H. Solier, superintendent of the Wyoming State Hospital for the Insane at Evanston, Wyo., and Dr. G. G. Verbryck, State senator from Cambria, Weston County. Dr. Verbryck also held the position of second vice-president of the State society, and Dr. Solier the position of treasurer. The entire committee set to work very shortly after the meeting at Rock Springs and gathered together the various laws of the different States, with a view to applying them to this State. In this connection it must be remembered that we have a large State, so far as territory is concerned, and laws which would apply to other States would not be applicable to this one for want of railroads, the existence of immense mountain ranges, the different classes of industries and the lack of railroad communications, which made it necessary for certain modifications in order to get a law through the legislature that would be operative and would not work an injury to those who are on the frontier, and probably hundreds of miles from a practicing physician. After taking all these local questions into consideration, the committee prepared and placed in the hands of their representative, Senator Verbryck, a bill, which in their judgment covered the ground as practicably as possible. When the senator and his committee looked it over it was found necessary to make some changes of a minor character, and after making the changes he succeeded in securing the passing of an act which we feel justified in saying has placed a protection around the people of this rapidly growing State, and given to the medical profession a law which will guard them against the invasion of quacks and charlatans, comparable to the laws of many States, much better than some and equally as good as the average.

Thanks to His Excellency, the Governor, who has the power to appoint the board, and who is a man of good, deliberate judgment, and a friend of the highest standard in the medical profession, a board was appointed in accordance with the law, composed of three members of the medical profession, all of whom are graduates of regular schools.

The following are the principal features of the new law: It provides for a State board of three examiners, appointed by the Governor with the advice and consent of the Senate, who shall pass upon the qualifications and determine the fitness of all persons who may desire to practice medicine, surgery or obstetrics, or who may publicly profess to cure or treat disease, injury or deformity, in any manner whatever in the State. The board shall have the power to administer oaths and take testimony, and shall meet annually at such points as may, as far as reasonable, accommodate applicants in different sections of the State. Every person desiring to practice medicine shall, if a graduate in medicine, present his diploma to the board for verification. If found genuine and issued by a medical college of acknowledged merit, said college being a member of the Association of American Medical Colleges, the Homeopathic Institutes, or the National Eclectic Medical Association, or any college of similar standing in foreign countries, and if the person named therein be the person claimed and presenting the diploma, the board shall issue its certificate to that effect, signed by the majority of all the members thereof, with the seal of the board attached; and said diploma and certificate shall be conclusive as to the right of the lawful holder of the same to practice medicine in the State. The board shall receive a fee of $5 from each such graduate. No person not qualified as above shall be permitted to practice medicine until he has passed a satisfactory examination before the board. The examination may be in whole or in part in writing and shall be of an elementary and practical character on the subjects of anatomy, physiology, chemistry, pathology, materia medica and therapeutics, hygiene, theory and practice of medicine, surgery and obstetrics, and sufficiently strict to test the qualifications of the candidate as a practitioner. For this examination, a fee of $25 shall be paid the treasurer of the board. The board shall be permitted to issue a certificate to any person not possessed of a diploma who has been actually engaged in the practice of medicine for ten years, the last five of which were in the State of Wyoming, under similar conditions as when a diploma is presented. Registration of certificate with the county clerk of the county is provided for, also penalties for fraud or misrepresentation, the refusing and revoking of certificates for unprofessional or dishonorable conduct, the examination and licensing of midwives, punishment of itinerant and unlicensed vendors and quacks, and also the usual exceptions to its provisions of students under preceptors,

medical officers of the army or navy, and the medical examiners of relief departments of railroad companies, consultants from other States, practitioners residing in other States whose practice extends over the borders, and of gratuitous services in case of emergency.

Fortunately, Wyoming has had a medical law which prohibited any one from practicing in the State who did not have a diploma, and required a person who practiced medicine in the State of Wyoming to register his diploma with the county clerk. This has prohibited a great many so called "legal practitioners" locating in this State, who by this law are permitted to practice medicine without a diploma, provided they have practiced medicine ten years, five of which must be in Wyoming.

We believe there is no other State in the Union which can boast of but one State board of medical examiners all of whom are graduates of a regular school of medicine of high standing and who have opportunities, notwithstanding the law is not all that could be desired, of raising the medical standard and keeping it at such a point as to prevent the influx of any members of the medical profession who are not up to the average standard of the best modern medical schools of the United States. The board consists of Drs. S. B. Miller, president, Laramie; Geo. P. Johnston, secretary, Cheyenne; C. M. Borkwell, Cheyenne. Our personal knowledge of the *personnel* of the board leads us to believe that they will look well to their honors and to the high standard of the medical profession in the State of Wyoming.

R. HARVEY REED, M.D.

Etiology of Seasickness.

NEW YORK, March 12, 1899.

To the Editor:—In the JOURNAL of March 11, in an article on this subject Dr. W. E. Darnall gives the disturbance of equilibration as the cause. If his meaning is that that is one of the *various* causes of the malady, I agree with him most heartily. But I have seen many cases in which I scarcely consider it a sufficient explanation of the trouble. I have spent most of my life near the ocean, and for several years have been surgeon on an ocean steamer, making long voyages, so speak from a large and varied experience. I have become convinced that no *one* cause can be assigned to all cases; and, from the results of empiric treatment, have gotten into the way of roughly classifying them under one of two heads: those in whom the trouble seems to be chiefly due to disturbance of the nervous system, and those in whom the digestive organs are mainly at fault. The line between the two is, however, not always very clear. Of the first are those who may be quickly and permanently relieved by the application of a belladonna plaster over the back of the neck, and a capsicum plaster over the pit of the stomach. These are usually women. Other women get almost complete relief by leaving off their corsets, thus avoiding pressure over the solar plexus, congestion of which seems responsible for the illness. Among those also whose nerve-centers seem to blame are the ones who are relieved by the exhibition of morphia and atropia, preferably given hypodermically; and among these are the victims of disturbance of equilibration. An entirely different class seems to be those who are speedily cured by the use of calomel given in triturates of $\frac{1}{10}$ to $\frac{1}{4}$ grain, frequently repeated till purgation results. If this does not occur in twenty-four hours a saline cathartic should be administered. This second class includes that numerous body of travelers whose friends, with mistaken kindness, have been giving them farewell dinners, and overloading them with an abundance and variety of indigestible food, which in itself would be enough to account for an attack of illness if the victims had remained on land.

I recall, however, some cases which I have never succeeded in explaining to myself. Many years ago I went fishing in a small boat to a ledge off the coast, in company with a gang of professional fishermen. With us was an elderly farmer whose home was near the shore. All went well as long as we were on the water, although we were anchored in a very choppy sea. On reaching shore we were invited to dine at the fishermen's hut, where we found an abundant "boiled dinner," and ate heartily, but before the meal was over the farmer was taken so ill with seasickness that he had to be put to bed, and it was not till next day that he recovered sufficiently to go to his home, less than a mile away.

A year or two ago, among the passengers on my ship was a gentleman who was taken ill with all the symptoms of seasickness as soon as we left the dock, although the water was perfectly smooth. For several days he barely took sufficient nourishment to keep him alive. One morning the engines were stopped for a few hours to make some repairs to the machinery. A very unpleasant sea was running, and the ship rolled and pitched heavily. The gentleman, however, as soon as the engines stopped, got up and ate a hearty meal with relish. As soon as the machinery began to move again he was once more a wreck, and was constantly suffering from nausea and headache until he landed, some two weeks later. I think, in his case, relief would have been secured by the use of morphia and atropia; but he absolutely refused to take them. Akin to this case are those who suffer from nausea, etc., on the railroad.

At the risk of being tedious, let me partially sum up the subject of treatment: Rely chiefly, in nervous cases, on morphia and atropia, given by preference hypodermically; and on calomel and Rochelle salts for disturbed digestions. Bromocaffein will often relieve the headache, and cocain will sometimes achieve wonders in overcoming nausea if given per os. Avoid the bromids of potassium and sodium, as they do more harm than good, by upsetting the digestion. Remember that a belladonna plaster over the nape of the neck, and a *large* capsicum plaster over the epigastrium will often be all that is needed to secure immunity from headache and nausea. If, when the ship is pitching much, a person instinctively holds his breath as he sinks to the hollow of each wave, insist on his "breaking step," so to speak. A determined effort to breathe regularly and not in rhythm with the motion of the vessel will quickly be successful in overcoming a muscular contraction of the diaphragm which, unchecked, would speedily lead to emesis. As regards diet, it is best to let patients choose for themselves to a great extent; what will do admirably for one being just what another can not tolerate. Liquids should be restricted in amount. Solids, like toast, or dry unsweetened biscuit, with a little iced champagne, or brandy and ginger ale, are less likely to be rejected by the stomach than are the usually administered beef tea and chicken broth. Do not insist too much on the value of fresh air on the deck. A day or two in bed with restricted diet is sometimes of more benefit than fresh air secured at the expense of one's reserve fund of energy.

When I have the chance to advise prospective voyagers, I always insist on careful diet for several days before going to sea; and a liberal calomel and saline purge about forty-eight hours before sailing.

Hoping that this brief summary of my experience with this hydra-headed cause of misery may be of service to some of your readers or their patients, I am,

Yours truly, PHILIP KITTREDGE TAYLOR, M.D.

BURLINGTON, IOWA, March 13, 1899.

To the Editor:—Under the above title I notice in the JOURNAL of March 11, the exploitation of another theory for this most distressing malady. It is perhaps needless to say that, like others, it is an explanation that does not explain, otherwise, one who should have the sickness once, should have it

every time there was provocation; and prevention and cure would be out of the question.

I shall not attempt to offer an explanation, but as this seems to be a subject for periodic discussion, I would like to offer some suggestions gathered from observations I made upon myself. For the convenience of a few of my personal friends, who, contemplating a sea voyage, have asked my advice, I have put these suggestions into the following rules, which I have called "Rules for the Prevention and Cure of Seasickness:"

Rule 1.—Stay on deck if weather will permit, until the ship has left the harbor. The odor of bilge water may penetrate the saloon and may not be pleasant.

Rule 2.—If the stomach is disturbed by the motion, look only at the horizon—the line where sea and sky meet. That stands still and the motion is less and less noticeable.

Rule 3.—Do not overeat at meals, and do not allow the stomach to remain long empty. If vomiting occurs, force yourself to eat a little well-seasoned, simple food (no slops) as soon thereafter as you can get it. The stomach may thus be "settled," or if vomiting must occur again it comes easier. Then eat again and again until the food is retained.

Rule 4.—Make up your mind, and keep the resolution *constantly in mind*, that you are always going to *fight* the tendency to seasickness.

Rules 1 and 2 are not hard to follow, 3 and 4 not easy. Rule 1 is based on the fact that some people get nausea from irritation of the olfactory nerves. Rule 2 is suggested by the fact that the body can be subjected, with only slight discomfort, providing the eyes are closed, to motions which could not be borne without giddiness, if the eyes witnessed the movements. Rule 3 needs no comment. Rule 4 is simply a recognition of the influence of mind over matter. It must be evident to all that if one can force the mind—and it can be done—to ignore the motion until the body learns to compensate for it, the fight against seasickness is won.

I have only to add that in four voyages, comprising in all thirty-eight days at sea, I had but one attack, and it lasted less than three days. I followed the plan outlined by these rules.

Truly yours, H. B. YOUNG, M.D.

"Surgeon-General Sternberg: Two Opinions."

WASHINGTON, D. C., March 18, 1899.

To the Editor:—In an editorial note in the JOURNAL of March 18, 1899 (p. 620), under the title "Surgeon-General Sternberg: Two Opinions," you cite the views of W. E. Curtis, in the *Chicago Record* of March 4, and those of the *Philadelphia Evening Post* of the same date, regarding the executive ability shown by the surgeon general of the army in discharging the duties of his office. In the minds of those who are most intimately acquainted with the responsibilities and work of the surgeon-general during the past year there are not two opinions. They concur fully in the views of the *Evening Post*, as given under the heading "Sternberg, the man of action," and in the editorial expression of opinion with which you judiciously close the article. I, personally, have seen much of the work that was done, and I am confident that the ultimate recognition of its value will sustain you in your prognostication.

It was not, however, to compliment you that I undertook the present writing, but to point out the gross misapprehension or misrepresentation of facts on which Mr. Curtis builds his remarks. He speaks disparagingly of the methods of promotion in the army, by seniority rather than by merit, and cites the experience of the medical department as an illustration, claiming, in effect, that because Dr. Sternberg was the senior surgeon he was placed in charge of the medical corps with its enormous responsibilities, irrespective of his qualifications for the position. Now, it is true that in the army promotion is ordinarily by seniority up to and including the grade of colonel, but when it is a question of filling the position of a general officer or chief of a bureau, the President of the United States is untrammeled in his selection. He does not select the senior officer of a corps as its chief unless he is satisfied that the senior officer is the best man to discharge the duties of the office. Dr. Sternberg was selected by President Cleveland, May 30, 1893, to succeed Dr. Charles Sutherland as surgeon-general of the army. At that time Dr. Sternberg was not the senior officer of his corps. He was not even a member of the senior grade of officers, the colonels. He was only a lieutenant-colonel and not even at the head of that list. In fact, there were ten officers of the medical department who were senior to him when he was selected by the President for the honorable distinction of being made chief of his corps because he was considered to be the man best suited to discharge the important duties of that position. Mr. Curtis, as a journalist of ability and repute, should take care of his facts before he makes deductions from them. He should not disparage honorable men by arguing from his assumptions or misapprehensions. Respectfully,

CHARLES SMART,
Lieut.-Col. and Deputy Surgeon-General, U. S. A.

Public Health.

Smallpox in New Orleans.—Up to March 17 inclusive, 76 cases were reported; no deaths; 10 discharged cured; 66 cases on hand, all in smallpox hospital in isolation.

Detroit Health Report.—For the week ending March 18: Dead 83, under 5 years 24. Contagious diseases: diphtheria, last report 7, new cases 8, recovered 6, dead 2, now sick 7; scarlet fever, last report 25, new cases 4, recovered 5, now sick 24.

Health Reports.—The following cases of smallpox, yellow fever, cholera and plague have been reported to the Supervising Surgeon-General of the U. S. Marine-Hospital Service for the week ended March 18, 1899:

SMALLPOX—UNITED STATES.

Alabama: Mobile, March 10, 4 cases.
California: Los Angeles, February 25 to March 4, 9 cases, 2 deaths.
District of Columbia: Washington, February 25 to March 11, 21 cases.
Florida: Jacksonville, February 18–25, 2 cases.
Georgia: Savannah, March 8, 7 cases; one among troops returned from Arecibo.
Kentucky: Louisville, March 3–11, 53 cases, 1 death.
Louisiana: New Orleans, February 25 to March 7, 19 cases.
Illinois: Chicago, March 10, 1 case.
Indiana: Clark County, Daviess County, Floyd County, Green County, Jefferson County, Marion County (Indianapolis), March 1, smallpox reported.
Ohio: Cincinnati, February 24 to March 11, 30 cases, 1 death.
Pennsylvania, Homestead, February 11 to March 11, 1 case; Altoona, February 11 to March 11, 1 case; Bedford County, February 11 to March 11, 1 case; Fulton County, February 11 to March 2, 1 case; Huntingdon County, February 11 to March 2, 5 cases; Somerset County, February 11 to March 2, 1 case.
Virginia: Alexandria, March 9–12, 5 cases; Lynchburg, March 4–11, 1 death; Norfolk, March 8–10, 18 cases; Portsmouth, March 4–11, 25 cases; Richmond, March 6–13, 5 cases.
Tennessee: Madison County, February 13 to March 11, 53 cases; Hardeman County, March 1–11, 1 case; Shelby County, Memphis, January 30 to March 11, 35 cases; Oliver County, March 3–11, 7 cases.
Texas: Bryan, January 29 to February 13, 24 cases; Monterey, March 2, 3 cases.
Washington: Spokane, February 25 to March 4, 1 case.

SMALLPOX—FOREIGN.

Brazil; Rio de Janeiro, February 20–27, 6 cases, 8 deaths.
Canada: Quebec, March 10, 2 cases.
Egypt, Cairo, Feb. 4–11, 1 death.
England: London, February 19–25, 2 cases.

India: Calcutta, January 28 to February 4, 2 deaths; Madras, January 28 to February 3, 1 death.
Mexico: Mexico, February 19–26, 2 cases, 1 death.
Russia: Moscow, February 5–12, 4 cases, 5 deaths; Odessa, February 18–25, 2 cases, 1 death; Warsaw, February 11–18, 3 deaths.
Turkey: Constantinople, Feb. 20–27, 16 deaths.

YELLOW FEVER—FOREIGN.

Brazil: Rio de Janeiro, February 20–27, 47 cases, 28 deaths.
Colombia: Barranquilla, February 5–18, 2 cases, 2 deaths.

CHOLERA—FOREIGN.

India: Calcutta, January 28 to February 4, 12 deaths.

PLAGUE.

India: Calcutta, January 28 to February 4, 1 death.

Society News.

Louisiana State Medical Society.—The annual meeting of this society will take place in New Orleans, April 25, 26 and 27.

Will County Medical Society.—This society held a special meeting and banquet, at Joliet, Ill., March 14. The speaker of the evening was Dr. D. R. Brower, of Chicago, who spoke on cerebral paralysis, presenting a paper. The next meeting will be held in May.

Stark County Medical Society.—At the meeting of this society, held in Massillon, Ohio, recently, the following officers were elected: President, W. O. Baker, Louisville; secretary, Dr. Pumphrey, Massillon; corresponding secretary, Dr. DeWitt, Canton; treasurer, Dr. Tyrell, Canton.

Salt Lake County Medical Society.—At the recent meeting of this society, Salt Lake City, Utah, it was voted to increase the dues of members in order that funds be assured for the establishment of a medical library, to be housed at present in the public library.

Pasadena Medical Association.—Dr. John B. Murphy of Chicago was the guest of honor at a recent meeting of this association, Pasadena, Cal., and presented a paper on "Gall-Bladder Surgery." Dr. Norman Bridge also presented a paper on "Pulmonary Hemorrhage."

Toledo Medical Association.—Friday evening, March 10, Dr. J. T. Lawless read a paper before the Toledo (Ohio) Medical Association, entitled "Operation for Fracture of the Patella." The Doctor also presented an umbilic cord fifty-four inches long, knotted in several places. The child had been dead four or five days when delivered.

Butler County Medical Society.—The election of officers for this society, at the last session, held in Hamilton, Ohio, resulted as follows: President, re-elected, F. M. Barden; vice-president, J. H. Roll; secretary, re-elected, August Schumacher; treasurer, re-elected, F. M. Fitton. Drs. Dan. Millikin, J. H. Roll and Geo. C. Skinner were re-elected censors. Dr. W. D. Hancock read a paper on "Scarlatina," and Dr. G. A. Hermann one on "Pneumonia as a Secondary Complication Following la Grippe."

New York County Medical Association.—At the last meeting of this association, Dr. Hermann Grad reported a case of successful excision of gastric ulcer. The following standing committees have been announced: Committee on medical charities and public health, Louis Fischer, chairman, C. I. Proben, Wickes Washburn, M. C. O'Brien and J. H. Woodward: committee on ethics and discipline, J. Harris Dew, chairman, J. Blake White, J. A. Wyeth, J. E. Messenger and D. L. Hubbard; committee on legislation, J. L. Nagle, chairman, D. H. Stewart, G. D. McGauran, W. T. Jenkins and E. E. Harris.

Missouri Valley Medical Association.—The semi-annual session of this association has just been held at St. Joseph, Mo., under the presidency of Dr. B. F. Crummer of Omaha. The day and evening sessions were occupied by the reading of papers, followed by a banquet, presided over by Dr. S. G. Gant as toast master. About one hundred physicians were present from neighboring cities and a visit was made to the State Lunatic Asylum No. 2, through the courtesy of the superintendent, Dr. R. C. Woodson. The officers of the association are: B. F. Crummer, Omaha, president; J. Geiger, St. Joseph, first vice-president; C. C. Allison, Omaha, second vice-president; T. B. Lacy, Council Bluffs, Iowa, treasurer; V. L. Treynor, Council Bluffs, Iowa, secretary. The next meeting of the association will be held at Council Bluffs, Iowa.

Cincinnati Academy of Medicine.—At the meeting of March 13, Dr. Gustave Zinke exhibited an infant suffering from exstrophy of the bladder; a female (from 80 to 90 per cent. occur in males); symphysis pubis absent, so that the posterior wall of the bladder bulges greatly forward through the unnatural opening, and forms a sort of convex tumor due to the pressure of the intestines from behind. The mucous membrane of the bladder is in a state of acute inflammation, and is covered with a lot of unhealthy, easily bleeding granulations; the openings of the ureters could be readily seen. The vagina is converted into a narrow fissure. The resignation of Dr. N. P. Danridge from the board of trustees of the academy was accepted, and Dr. Giles Mitchell was elected in his place. The financial secretary was voted $50 as a testimonial of the appreciation of the academy for his services during the year. The annual reports of the various officers were then read and accepted. The retiring president Dr. Louis Schwab, then made an address welcoming the new administration, and the president-elect, Dr. E. W. Mitchell, made his inaugural address.

Washington (D.C.) Medical Society.—At the meeting of the society held March 15, the discussion was continued on the paper of Dr. Adams, on immunizing with the antitoxin of diphtheria. Dr. J. E. Walsh, medical sanitary inspector of the health office, gave statistics showing varying mortality in the use of antitoxin and other treatments in diphtheria. In 1894, 174 cases treated with antitoxin had a mortality of 13.2, while 142 cases, treated without antitoxin, had a mortality of 34.9. In 1896, 288 cases were treated with antitoxin, with a mortality of 7.3, while 335, treated without antitoxin, had a mortality of 26. The mortality from diphtheria in the District from 1891 to 1893 was as follows: 1891, 34 per cent.; 1892, 32 per cent.; 1893, 33 per cent.; 1894, 40 per cent.; 1895, 29.6 per cent.; 1896, 23 per cent.; 1897, 17.7 per cent.; 1898, 18.7 per cent. Dr. D. S. Lamb presented the following pathologic specimens: 1. Both kidneys on right side, one in normal position, the other in right iliac fossa; the two ureters united and entered the bladder on the right side. 2. Malarial kidney in a patient aged 30 years, spleen and liver enlarged; cortex of kidney mottled; patient had suffered from hematuria. 3. A very small kidney, believed to be a congenital defect. 4. Contracted kidney; history of rheumatism; heart enlarged; myocarditis, with hemorrhage into lungs. Dr. Glazebrook, the deputy coroner for the District, presented a specimen of ascending and transverse colon with numerous deep pouches containing fecal concretions. The pockets and depressions containing the concretions caused attenuation of the muscular coats almost to perforation. The patient had died suddenly of angina pectoris.

Miscellany.

Noma.—Klautsch (*Archiv für Kinderheilkunde*, 26 B., iii, u. iv Heft, p. 245) reports a fatal case of noma in an ill-nourished child, 2 years old, with gastro-intestinal derangement, and expresses agreement with the opinions that the disease is dependent upon the activity of not a single specific microorganism, but of any of a number of putrefactive bacteria, that do no harm upon a healthy mucous surface, but lead to necrobiosis of mucous membranes whose resistance has been lowered by disease or other nutritive disturbance.

Oatmeal as a Cause of Constipation.—Dr. Geo. J. Monroe of Louisville (*Lancet-Clinic*, March 11) calls attention to the frequent constipation from the habitual use of oatmeal as an article of diet, especially in the aged and in those of sedentary habits. He reports several cases, and says he can recall many cases of the trouble which he is now satisfied were produced by the too free use of oatmeal.

Funnel-breast.—Jas. R. Arneil (*Phila. Med. Jour.*, March 11) reports six cases of this peculiar deformity, which has been considered rare, but which is now looked upon as, comparatively, most frequent in degenerates and especially in the insane. Only one case is reported in full, the others are simply mentioned. The author discusses the causation of this deformity and gives various opinions that have been offered in regard to it. The congenital form is especially difficult to explain. A notable feature in this paper is that five of these cases were men of not only normal vitality, but fine physical development and excellent family history.

Aguinaldo.—In its issue of March 4, the *British Medical Journal*, after mentioning several prominent public men who have been members of our profession, says editorially: "It appears that medicine may also have the perhaps doubtful honor of at least partly claiming Aguinaldo, the Filipino patriot. His face and features and the conformation of his skull are of the European type and he is believed to be the son of a Spaniard, though there is a conflict of testimony as to whether the honor of his paternity belongs to a general or a Jesuit. He was born in Cavite and was, in his boyhood, in the service of a priest, who gave him some education. At the age of 15 he entered the Pontifical University of Manila, where he worked under Professors Waldo and Buitrago. He afterward studied at the Victoria College, Hongkong. He was remarked for his ability as a student, but nothing else is known of his career. We are, therefore, unable to say positively whether he was ever pronounced *dignus entrare in nostro docto corpore*.

The Urine of Intermittent Fever.—In the study of the urine in six cases of malaise intermittent fever, Hitzig (*Deutches Archiv für Klin. Med.*, 62 Band, iii u, 4, Heft, p. 358) found the secretion increased in amount during the febrile period, of light color and low specific gravity. The maximum quantity was attained generally at the acme. A diminution at this period and an increase in the sweating stage occurred only exceptionally. The total amount of nitrogen eliminated was increased during the febrile period, the variations corresponding with those in the amount of urine, but sometimes preceding or succeeding those in temperature. The urea corresponded with the total amount of nitrogen, but no conclusion could be reached as to the percentage—participation in that amount—during and independently of the febrile period. The ammonia was increased during the febrile period, the increase often corresponding with that of the total nitrogen, but sometimes following this, so as to fall at times upon afebrile days. The relation between the total nitrogen and the nitrogen of the ammonia, as compared with the normal, of 100 : 5, was in some cases greatly altered in favor of the ammonia; in one instance equaled 100 : 25. The variations in the elimination of uric acid corresponded in time and amount approximately with those of the total nitrogen. No marked increase in the amount was observed. The elimination of potassium and of sodium was greatly increased during the febrile period, that of the former, was about tenfold; that of the latter about sixteenfold. The chlorids also were greatly increased during the febrile period, but later correspondingly diminished, the increase corresponding in time and amount to that in the sodium and not being attributed to disintegration of red blood-corpuscles. The phosphates were greatly diminished during the febrile period, but later correspondingly increased, the diminution beginning before the advent of the fever.

Gynecology on the Insane.—Dr. W. P. Manton (*Medical News*, March 11) anticipates the report of the Eastern Michigan Asylum by publishing the results of gynecologic operations performed on patients in that institution. A total of twenty-eight operations were made on seventeen patients, as follows: vaginal hysterectomy, 3; abdominal hysterectomy, 1; celiotomy for intraligamentous cyst, 1; ventral fixation, 4; curettage and divulsion, 6; trachelorrhaphy, 4; perineorrhaphy, 3; anterior colporrhaphy, 1; posterior colporrhaphy, 1; occlusion of vagina, 1; removal of uterine polypus and submucous fibroids, 1; removal of hemorrhoids, 2. Four patients recovered after the operation (23.52 per cent.), three improved mentally (17.64 per cent.), and ten remained unchanged. There were no fatalities. Of the four patients that recovered, two had melancholia and two had acute mania. The fact that two of the cases, one of acute mania of ten weeks' duration, and one of melancholia of nine months, were within the usual limit of time that may be considered hopeful, affects the estimate of the value of the operations in these two cases. In the other cases of melancholia the duration was unknown, but recovery may occur in that form of disorder after long periods. One case of acute mania reported as of one year and seven months' duration is possibly a case of periodic insanity, and this possibility is to be considered in all cases of that type. The paper is a valuable one as showing the tolerance of gynecologic operations in the insane, but it can hardly be considered as conclusive as to its effect in producing permanent mental improvement or recovery. There is no question that the insane woman has as good a right to have her disability removed as any other, and therefore gynecologic operations in these cases are advisable whenever they are indicated and are practicable.

Tuberculosis in the Insane.—Dr. H. H. Tomlinson, superintendent of the St. Peter's Asylum, Minnesota, published in the *N. Y. Med. Jour.*, March 11, an interesting paper on the observations and findings as to phthisis in the insane. The period of his study covers from January, 1895 to 1898, during which time fifty patients succumbed to the disease. None of these had their condition thus diagnosed on admittance, and tuberculosis appears to have originated during their residence. The special type of the disease, in the great majority of these cases, was a peculiar one. There was little emaciation until shortly before death and rational signs were largely absent or not so marked as cases outside the institution. Attention was generally first called to these cases by the elevation of temperature, general weakness and sweating. The course of the disease was often greatly prolonged, and even after the patient had taken to his bed, he might continue a merely vegetative existence for months or even a year. The condition of the lungs on post-mortem was also peculiar; the cavities were few and small, the lung heavy, its tissue dense, the basis often only a mass of dense fibrous tissue, and the only normal appearing portions were found in the middle and anterior regions of the lungs. Dr. Tomlinson calls attention to the close resemblance existing between these conditions and those of bovine tuberculosis, except that in the latter, the animals having been killed, the stages are not so advanced. Undoubtedly the conditions must have existed for a long time before attention was called to them. The Doctor recapitulates his paper by stating that phthisis in an old institution like St. Peter's is relatively more common than in the general population; for the last year covered by the paper, the percentage of deaths 46. It is most common among degenerates in whom the lungs and kidneys are both likely to be affected with the connective-tissue degeneration described. He considers this tendency to connective-tissue degeneration to be especially a manifestation of inherent defect, in other words, a symptom of degeneracy. In seventy-two post-mortems made during the period, he found all more or less involved as to the lungs and kidneys. In no case was there a

perfect healthy condition found. He, therefore, accounts for the relative frequency of tuberculosis in the insane to this original defective tendency of the organism, rendering them the more liable to infection and morbid conditions favored by the overcrowding, etc., in such institutions.

St. Joseph, Mo.

ENSWORTH MEDICAL COLLEGE.—The commencement exercises of this college were held Tuesday, March 14.

CEREBROSPINAL MENINGITIS.—A large number of deaths have been reported recently from cerebrospinal meningitis.

MISSOURI LEGISLATION.—A bill has been introduced in the State Legislature prohibiting advertisement by physicians, to cure any disease. The object is to drive out advertising quacks.

New York City.

APPOINTMENT.—Dr. Edward H. Peaslee has been appointed manager of the State Custodial Asylum for Feeble-Minded Women, by Governor Roosevelt.

FATALITY OF PNEUMONIA.—The great prevalence and fatality of pneumonia in New York during the winter months is shown by the fact that during the four weeks embracing part of February and the first three days of March, there were reported no less than 968 deaths from the disease, or 255 more than the deaths from pulmonary tuberculosis. The largest number of deaths from it in any one week was 257.

Washington.

CENTRAL DISPENSARY AND EMERGENCY HOSPITAL.—At the meeting of the board of trustees, held March 10, the report of the attending staff gave the number of new cases as 1067; visits 2343; operations 353; prescriptions compounded 2541; deaths 4; ward cases 58; ambulance calls 58; smallpox patients applying for treatment 5; sent to pest-house 5. Two cases of epidemic cerebrospinal meningitis admitted to the wards promptly died, the post mortem showing the characteristic lesions.

ST. ELIZABETH'S HOSPITAL.—The monthly lecture to the patients of the Government Hospital for the Insane was recently given by Dr. A. H. Witmer of the medical staff. He presented stereopticon views showing the important transactions of the Spanish-American War incident to the capture of Santiago.

HEALTH OF THE DISTRICT.—The report of Health Officer Woodward, for the week ended March 11, shows the total number of deaths in the District to have been 108, 62 white and 46 colored. There were 8 fatal cases of cerebrospinal meningitis, 27 cases of smallpox, 75 of scarlet fever and 55 of diphtheria under treatment.

Philadelphia.

HONORABLE DISCHARGE.—Dr. Edward O. Shakespeare, who received the appointment of brigade surgeon at the commencement of hostilities with Spain, has received an honorable discharge from the Secretary of War.

DR. HARTE ILL.—Dr. Richard H. Harte, surgeon to the Pennsylvania Hospital and demonstrator of osteology at the University of Pennsylvania, is ill with typhoid fever.

TYPHOID PATIENTS.—The Episcopal Hospital announces that there are 69 cases in that institution; the Pennsylvania, 65 cases; the Presbyterian, 45 cases; the Medico-Chirurgical, 14 cases; while the University, St. Joseph's, St. Agnes, Polyclinic and other institutions are filled to overflowing with typhoid fever patients.

RIGHT IN ESTABLISHING QUARANTINE STATION.—Word has been received from the attorney-general's department to the effect that the State has the right to condemn and acquire any property necessary for the establishment of a quarantine station in Pennsylvania, according to the Act of 1893. This was in answer to the question recently submitted to the attorney-general by Dr. Benjamin Lee, formerly health officer of Philadelphia.

A BOLD THIEF.—The police are looking for a man about 5 feet 5 inches in height, about 40 years old, of medium build, smooth face, dark slightly gray hair and patent leather shoes, who recently committed a burglary in broad daylight. The man was in the disguise of a "sanitary inspector" and wore the prescribed uniform, including the hat. He called at the home of a citizen and asked to inspect the water pipes and sanitary arrangements of the house. He was admitted to the bath-room and, on the butler being called away (probably by a confederate), the man entered an adjoining room and stole jewelry valued at $450.

GOVERNOR MAKES APPOINTMENTS.—Governor Stone, on March 16, sent to the Senate, for confirmation, the following: Charles E. Yarvey, vice George G. Groff, and P. A. Boyer of Selin's Grove, vice Pemberton Dudley, to be members of the State Board of Health and Vital Statistics.

CHARITY BALL.—The charity ball of 1899 resulted in $9000 to be distributed to: Children's ward of the University Hospital; St. Christopher's Hospital for Children; Pennsylvania Society to Protect Children from Cruelty; Sanitarium Association of Philadelphia. Since 1881, the total amount raised by this means has aggregated $180,000.

GERMAN HOSPITAL REPORT.—The thirty-ninth annual report shows that during the year just closed there were treated in the hospital a total of 4139 cases, an increase over the previous year of 1157 cases. Through the gift of the president, Mr. John D. Larkeron, a new pathologic institute has been erected. The total receipts for the year were $71,606.14, and the total expenses $76,131.16.

SUCCESSOR TO DR. GUITÉRAS.—Dr. Simon Flexner, professor of pathologic anatomy in the Johns Hopkins University, has just accepted the position of professor of pathology in the University of Pennsylvania, to succeed Dr. John Guitéras, resigned. Professor Flexner graduated from the medical department of the University of Louisville in 1889, and in the following year entered Johns Hopkins University as a graduate student in pathology. In 1891, he was given the Fellowship in pathology, from which he advanced through the grades of associate in pathology, and associate professor of pathology. Subsequently, the chair of pathologic anatomy was created, to which he was appointed. He is widely known throughout this country and Europe as an original investigator, his most important work having been in the field of experimental pathology. He has been regarded as one of the most earnest, successful, and popular teachers in the Johns Hopkins University. He enters upon his duties at the University of Pennsylvania September 1 of the present year. Dr. Flexner will be offered unusual facilities with which to conduct the teaching of pathology, as well as to carry on original work. The University of Pennsylvania is about to erect a large laboratory building, a large part of which will be devoted to the department of pathology. The main part of the building is 192 feet in length, and there are wings running back 128 feet at each end. Large student laboratories will be placed in the wings, while the front of the main building will be divided into a number of special research rooms, offices, and workrooms of various sorts. To the rear of the center of the main building there is on each floor a special demonstration room, and a lecture-room arranged in the form of an amphitheater.

COLLEGE OF PHYSICIANS.—This institution, probably the oldest medical body in the United States, is making an earnest endeavor to increase its endowment fund to $50,000. The college should be looked upon as a public institution and the conservator of the health of the entire community, for it is here that medical societies and general scientific bodies meet for the discussion of subjects of vital interest to all citizens. Out of a membership of somewhat over 300, thirty-one fellows, or one-tenth the membership, have either written or edited medical books during 1898.

MEDICAL MEN OPPOSE ANTIVACCINATION.—The physicians of Philadelphia have become considerably aroused over the antivaccination movement which has been quietly but progressively pushing forward in the State for the past few months. The foremost opponents of the Bill introduced by Representative Allen, and who sent their members to Harrisburg, were: The College of Physicians, represented by Drs. John K. Mitchell, William M. Welch and David Cleeman; County Medical Society, by Drs. J. C. Wilson, A. H. Hulshizer and

J. H. Musser; Pediatric Society, by Drs. M. Hamill, J. Madison Taylor and D. L. Edsall. The principal address before the Legislature was made by Dr. John K. Mitchell. Dr. Leonard Pearson, State veterinarian, also made an address to prove that vaccin matter was not the mode of conveyance of loathsome disease, as had been charged by the antivaccinationists.

MORTALITY STATISTICS.—A summary of the typhoid epidemic may be made as follows: New cases reported March 1, 95; deaths, 9; cases for week ending March 18, 477; deaths, 44; cases since January 1, 4509; deaths, 457. The total number of deaths occurring the week ending March 17 was 520, the same as the preceding week and an increase of 36 over the corresponding week of last year; 127 deaths occurred in children under the age of five years. The principal causes of death were: apoplexy, 15; nephritis, 30; tuberculosis, 71; diabetes, 1; heart disease, 48; influenza, 6.

Questions and Answers.

PROSTATE TABLETS.

CHICAGO, March 15, 1899.

To the Editor:—In the JOURNAL of February 18, p. 369, there is mentioned the use of prostate tablets in prostatorrhea. Can you give me any information regarding these tablets or where I will be able to obtain them?

Yours respectfully, J. M. B.

ANSWER.—Armour & Co., Chicago, make desiccated extract of the prostate gland, and Burroughs, Wellcome & Co., London, England, prostate tablets.

PRACTICE IN WYOMING AND NEBRASKA.

NASHVILLE, TENN., March 10, 1899.

To the Editor:—If it is not too much trouble, will you let me know what is necessary for permission to practice medicine in Wyoming and Nebraska. Please let me know what to do and what it will cost in each State. I am a graduate of the Baltimore Medical College. J. W. W.

ANSWER.—Full information in regard to the Wyoming medical laws can be obtained by reference to our "Correspondence" columns of this week. The Nebraska law requires the submission of a diploma to the board of health, which, if it is from a recognized college, will grant a license. Write to the secretary of the board of health, Lincoln, Neb., and he will send a blank to be filled out. The fee is $10.

ANTIQUE SURGICAL INSTRUMENTS.

CLEVELAND, OHIO, March 6, 1899.

To the Editor:—I notice in the JOURNAL of February 25, p. 444, an appeal to possessors of antique surgical instruments, etc. As I have a "medicine chest" with dates of 1790 in it, I should be glad to have the address of the above mentioned collectors. Yours respectfully,

JESSIE BOGGS, M.D.

ANSWER.—We believe that the information desired can be obtained by addressing Dr. A. Chauffard, Professeur Agrégé de la Faculté de Méd., Paris, France.

ANOMALIES OF ENGLISH MEDICAL EDUCATION.

PANORA, IOWA, March 13, 1899.

To the Editor:—I was much interested in your editorial in the JOURNAL of March 4 on the "Anomalies of English Medical Education." May I ask what is the work required in the different colleges for the right to practice medicine and surgery? I mean for the M.R.C.S. and F.R.C.S. and the M.R.C.P. and F.R.C.P., etc., as also the M.D. I have in mind to find out the difference in the requirements of authority to practice medicine and surgery in England and America. Yours fraternally,

C. O. SONES, M.D.

ANSWER.—The information will probably be best obtained from the student's number of the *British Medical Journal* and *Lancet*, which generally appears in August. The examination papers are, of course, not published. In brief, however, we might say that the M.R.C.S. and the M.R.C.P. degrees are obtained upon examination after a five-years course in clinical work and lectures has been taken. The F.R.C.S. and F.R.C.P. degrees are to a certain extent honorary, although not entirely so. The M.D. degree is conferred only by universities, and is presumed to require a classic education besides the medical.

CINNAMIC ACID.

CHICAGO, March 20, 1899.

To the Editor:—I notice in the JOURNAL of March 18, p. 633, an inquiry from a California physician, concerning this remedy for tuberculosis, and in addition to the matter given him in answer, I would like to add that Prof. A. Landerer's address is Stuttgart, Germany, where he has charge of the surgical department of the Carl Olga Krankenhaus or Hospital.

E. P. C.

CHANGE OF ADDRESS.

Antisdale, E. S., from Benton Harbor, Mich., to 103 State St., Chicago.
Bobo, C. S., from Weatherford, Tex., to Norman, O. T.
Brown, J. M., from 39 Whitehall to 391 Washington St., New York City.
Brashear, B. B., from Cleveland, O., to 803 Pacific Av., Atlantic City, N. J.
Behle, W. H., from Summitt Blk. to Galena Blk., Salt Lake City, Utah.
Caldwell, F. H., from Sanford, Fla., to Waycross, Ga.
Gee, E. H., from 650 Van Buren to 649 Adams, Chicago.
Green, E. M., from 303 W. Chestnut, Louisville, to Versailles, Ky.
Her A. W., from 66 Michigan Av. to 446 Euclid Av., Cleveland, Ohio.
Hubbard, E. E., from Faribault, Minn., to Rialto Bldg., Kansas City, Mo.
Jenney, F. L. B., from 1033 Evanston Av. to 60 Bitter-Sweet Pl., Chicago.
Johnson, M., from Wilcox Blk. to 508 Frost Blk., Los Angeles, Cal.
Lyon, S. B., from Chicago, Ill., to 8 Mason St., San Francisco, Cal.
Lincoln, B. S., from Missouri City to Monroe City, Mo.
Petzke, E. A., from Madison to Hixton, Ill.
Richstein, J. J., from Evansville, Ind., to 1003 Clay St., Oakland, Cal.
Reedy, E. S., from Joliet, Ill., to Bloomington, Ill.
Spring, C. K., from 1409 Harrison to 46 Fowler, Chicago.
Smith, J. E., from 3255 Hermitage to 236 Winchester, Chicago.
Sweemer, W., from 12th and Walnut to 622 11th St., Milwaukee, Wis.
Schmall, O. B., from 109 14th St. to 110 E. 8th St., Cincinnati, Ohio.
Tuttle, J. P., from 35 W. 45th St. to 42 W. 50th, New York City.
Wilson, A. L., from 823 to 1527 N. Illinois St., Indianapolis, Ind.

The Public Service.

Movements of Army Medical Officers under orders from the Adjutant-General's Office to March 16, 1899.

Robt. L. Bartlett, acting asst.-surgeon, from duty at Anniston, Ala., to New York City, reporting to the medical superintendent of the transport service.

Powell C. Fauntleroy, lieutenant and asst.-surgeon U.S.A., from the hospital ship "Missouri" to the general hospital, Savannah, Ga.

Richard M. Fletcher, Jr., acting asst.-surgeon, from Anniston, Ala., to post duty at Ft. Harrison, Mont.

John N. Goltra, acting asst.-surgeon, from Anniston, Ala., to post duty at Ft. Douglas, Utah.

Wm. R. Hall, major and surgeon U.S.A., to proceed to Camp Meade, Pa., to supervise the hospital accommodation and the sanitation of the camp during its occupancy by volunteer troops.

Henry S. T. Harris, major and brigade surgeon Vols., leave of absence granted.

H. Hartnett, lieutenant and asst.-surgeon U.S.A., former orders amended so as to direct him to report to the battalion commander 6th U.S. Art. at Ft. Monroe, Va., to accompany the command to Manila, P. I.

Frederick M. Hartsock, lieutenant and asst.-surgeon U.S.A., leave of absence extended.

Jas. H. Hepburn, acting asst.-surgeon, from Washington, D. C., to Plattsburg Bks., N. Y., to accompany the 21st U.S. Inf. to Manila, P. I.

Wm. F. Lewis, captain and asst.-surgeon U.S.A., from duty with the 8th U.S. Cav. and as examiner of recruits at Baltimore, Md., to Madison Bks., N. Y., to accompany the 9th U.S. Inf. to Manila, P. I.

David T. McKinney, acting asst.-surgeon, from Minneapolis, Minn., to New Brighton, Pa.

Harry C. Perley, major and surgeon U.S.A., leave of absence granted from his command at the army and navy general hospital, Hot Springs, Ark.

Elias H. Porter, acting asst.-surgeon, from duty at Albany, Ga., to New York City, reporting to the medical superintendent of the army transport service.

Henry I. Raymond, major and brigade surgeon Vols., former orders suspended, requiring him to proceed to Ft. Porter, N. Y., to accompany the 13th U.S. Inf. to Manila, P. I.

Jos. C. Reifsnyder, acting asst.-surgeon, from Greenville, S. C., to Ft. McHenry, Md., to accompany the 6th U.S. Art. to Manila, P. I.

Shannon Richmond, acting asst.-surgeon, from Huntsville, Ala., to Ft. Leavenworth, Kan.

Henry A. Shaw, captain and asst.-surgeon U.S.A., sick leave granted.

B. F. Van Meter, acting asst.-surgeon, from Ft. Sam Houston, Tex., to accompany the 6th U.S. Inf. to Manila, P. I.

Wm. C. Warmsley, acting asst.-surgeon, on the arrival of the 23d Kan. Inf. at Ft. Leavenworth, Kan., to proceed to Santiago, Cuba, for duty in that department.

Raymond E. Whelan, acting asst.-surgeon, to duty on the army transport "Hooker."

Robt. S. Woodson, captain and asst.-surgeon U.S.A., from the Dept. of Santiago, Cuba, to post duty at Ft. Clark, Tex.

A board of medical officers consisting of Majors Wm. R. Hall, Louis A. La Garde, Edw. C. Carter, surgeons U.S.A., and Capt. E. L. Munson, asst.-surgeon U.S.A., was appointed to meet in Washington, D. C., on the call of its president, for the purpose of making recommendations relating to a revision of the standard supply table and field supply table as published in the manual for the medical department, approved June 17, 1898.

General Orders No. 46 from headquarters of the army, issued March 13, 1899, direct the honorable discharge of a number of officers of the volunteer army, among them certain medical officers. The discharge of each is to take effect on the date specified:

CHIEF SURGEONS.

Lieut.-Col. Robt. M. O'Reilly, May 12, 1899.
Lieut.-Col. Alfred C. Girard, April 12, 1899.
Lieut.-Col. Timothy E. Wilcox, April 12, 1899.
Lieut.-Col. Jefferson R. Kean, May 12, 1899.

BRIGADE SURGEONS.

Major Paul Clendenin, May 12, 1899.
Major Jas. D. Glennan, May 12, 1899.
Major Nathan S. Jarvis, April 22, 1899.
Major Peter D. McNaughton, May 12, 1899.
Major John R. McDill, May 12, 1899.
Major Geo. B. Bunn, May 12, 1899.
Major Elmer E. Heg, May 12, 1899.
Major Wm. S. Bryant, May 12, 1899.
Major Wm. F. de Neideman, May 12, 1899.
Major Francis C. Ford, May 12, 1899.
Major John L. Macumber, May 12, 1899,
Major Robert Burns, May 12, 1899.

Movements of Navy Medical Officers.—Changes in the medical corps of the U.S. Navy for the week ending March 18, 1899.

Asst.-Surgeon W. H. Bell, detached from the naval hospital, Washington, D. C., and ordered to the "Vixen."

Asst.-Surgeon H. D. Averill, detached from the "Iowa" and ordered home.

Asst.-Surgeon W. H. Ulsh, detached from the naval hospital, Philadelphia, Pa., and ordered to the "Glacier" April 6.

Asst.-Surgeon R. K. McClanahan, detached from the "Richmond" and ordered to the naval hospital, Philadelphia, Pa.

Medical Director D. Kindleberger, retired, granted leave abroad from April 15.